S. HRG. 99-549

RESOURCE CONSERVATION AND RECOVERY ACT AMENDMENTS OF 1984—OVERSIGHT

HEARING

BEFORE THE

SUBCOMMITTEE ON
ENVIRONMENTAL POLLUTION

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

NINETY-NINTH CONGRESS

SECOND SESSION

ON

H.R. 3917

AN ACT TO EXTEND THE PERIOD ALLOWED FOR COMPLIANCE WITH CERTAIN FINANCIAL RESPONSIBILITY REQUIREMENTS APPLICABLE TO LAND DISPOSAL FACILITIES UNDER THE SOLID WASTE DISPOSAL ACT

AND

RESOURCE CONSERVATION AND RECOVERY ACT AMENDMENTS OF 1984 OVERSIGHT

FEBRUARY 24, 1986

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RESOURCE CONSERVATION AND RECOVERY ACT OVERSIGHT

MONDAY, FEBRUARY 24, 1986

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION,
Washington, DC.

The subcommittee met, pursuant to notice, at 2 p.m., in room SD-406, Dirksen Senate Office Building, Hon. John H. Chafee (chairman of the subcommittee) presiding.

Present: Senators Chafee and Mitchell.

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. I want to welcome Congresswoman Johnson, and everybody here this afternoon at this hearing.

This is a meeting of the Subcommittee on Environmental Pollution. It is an oversight hearing on the implementation of RCRA, the Resource Conservation and Recovery Act.

The law, as you know, was designed to control the management of hazardous wastes from the point of generation to ultimate disposal, and that law was crafted to assure the protection of human health and the environment, and to prevent the creation of future Superfund sites. We have enough problems with existing Superfund sites, and this is designed to prevent the occurrence of others.

In 1981, Congress began a thorough review of EPA's program under this important law, and found a number of serious problems. The Agency's regulatory program was riddled with loopholes and did not have a sense of direction.

To correct these problems, Congress conducted a complete overhaul of the law. The process of rewriting that law culminated with the enactment of the Hazardous and Solid Wastes Amendments of 1984, and the result was a law that left EPA with a lot less discretion than it was accustomed to, and a number of very specific tasks.

I don't envy the folks at EPA who must implement this law. This is a tough job, but it is also a job that has to be done; we have a lot at stake.

Today, almost 16 months after the 1984 amendments became law, we are here to see how things are going. Since it would be impossible to discuss all the relevant issues at one hearing, we have asked witnesses to submit written testimony on any number of issues, but the oral testimony will be limited to two.

The first two panels will address a bill that was recently passed by the House, H.R. 3917, and the problem known as "loss of interim status," LOIS. This issue is the result of a provision added to the law in 1984 that required all land disposal facilities to certify by November 8, 1985, that those land disposal facilities were in compliance with ground water monitoring requirements and financial responsibility requirements. A failure to certify that both of those were met, the ground water monitoring and the financial responsibility, would result in the loss of interim status, and loss of the authority to dispose of hazardous wastes at that facility.

For many companies, the only way to satisfy the financial responsibility requirement is to purchase commercial liability insurance. Apparently, there is a lack of availability of such insurance, which has created problems for some companies that would otherwise comply with the November 8 certification requirement.

I look forward to hearing testimony on that issue.

The third panel will discuss EPA's recently proposed regulatory framework regarding prohibitions on the land disposal of untreated hazardous wastes.

I was chairman of the Conference Committee in 1984, and thus the fact that EPA's proposal completely misses the point of the 1984 amendments and ignores the intent of Congress regarding the land disposal of untreated waste is of particular concern to me. We will have more to say about that later.

Our final panel will be representatives from EPA who will discuss both the loss of interim status issue, and EPA's proposal on land disposal of untreated wastes.

We have statements from Senators Thurmond, Heflin, and Hawkins which will be inserted in the record at this point.

[The statements referred to follow:]

STATEMENT BY SENATOR STROM THURMOND (R-S.C.) BEFORE THE SENATE SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION REFERENCE LEGISLATION TO EXTEND THE PERIOD ALLOWED FOR COMPLIANCE WITH CERTAIN FINANCIAL RESPONSIBILITY REQUIREMENTS APPLICABLE TO LAND DISPOSAL FACILITIES UNDER THE SOLID WASTE DISPOSAL ACT. FEBRUARY 24, 1986.

MR. CHAIRMAN:

I WISH TO COMMEND YOU FOR HOLDING THIS HEARING ON H.R. 3917, AND LOOK FORWARD TO SWIFT COMMITTEE ACTION ON THE BILL.

MR. CHAIRMAN, IF THIS LEGISLATION IS NOT ENACTED, MANY BUSINESSES MAY BE FORCED TO SHUT DOWN, DESPITE THEIR GOOD FAITH EFFORTS TO DEMONSTRATE FINANCIAL RESPONSIBILITY FOR LIABILITY CLAIMS, AND DESPITE THEIR COMPLIANCE WITH THE GROUNDWATER MONITORING REQUIREMENTS OF THE SOLID WASTE DISPOSAL ACT.

ON NOVEMBER 8, 1984, THE PRESIDENT SIGNED INTO LAW THE HAZARDOUS WASTE CONTROL AND ENFORCEMENT ACT. ONE OF THE PROVISIONS OF THAT LAW REQUIRED ALL HAZARDOUS WASTE LAND DISPOSAL FACILITIES TO CERTIFY BY NOVEMBER 8, 1985, THAT THEY WERE IN COMPLIANCE WITH BOTH THE GROUNDWATER MONITORING REGULATIONS AS WELL AS THE FINANCIAL RESPONSIBILITY REQUIREMENTS PROMULGATED UNDER THE SOLID WASTE DISPOSAL ACT. FAILURE TO CERTIFY RESULTS IN THE CLOSURE OF THE LAND DISPOSAL FACILITY.

I AM ADVISED BY THE EPA THAT SINCE THE TIME THIS LEGISLATION WAS ENACTED INTO LAW -- ONE YEAR AGO -- INSURANCE HAS BECOME LARGELY UNAVAILABLE FOR POLLUTION RISKS. IT IS, THEREFORE, VIRTUALLY IMPOSSIBLE FOR MANY LAND DISPOSAL FACILITIES TO OBTAIN THE INSURANCE THEY NEED TO COMPLY WITH THE FINANCIAL RESPONSIBILITY REQUIREMENTS. IF THEY CANNOT COMPLY WITH THE FINANCIAL RESPONSIBILITY REQUIREMENTS, THESE FACILITIES MAY HAVE TO CLOSE.

MR. CHAIRMAN, THROUGH NO FAULT OF THEIR OWN, THESE FACILITIES MAY HAVE TO CLOSE EVEN THOUGH THE ONLY REASON THEY CANNOT COMPLY WITH THE LAW IS DUE TO PROBLEMS IN THE INSURANCE INDUSTRY OVER WHICH THEY HAVE NO CONTROL. THEY MAY HAVE TO CLOSE EVEN THOUGH THEY HAVE WORKED HARD TO COMPLY WITH THE IMPORTANT GROUNDWATER MONITORING REGULATIONS. IF WE ALLOW THIS TO HAPPEN, WE WILL BE PENALIZING THOSE VERY BUSINESSES THAT HAVE DEVOTED TIME AND MONEY TO COMPLY WITH THE GROUNDWATER REGULATIONS.

MR. CHAIRMAN, AS AN EXAMPLE OF THE PROBLEM MANY ENVIRONMENTALLY SOUND COMPANIES ARE HAVING PROCURING INSURANCE, I REQUEST THAT COPIES OF CORRESPONDENCE BETWEEN SYNALLOY CORPORATION - A SOUTH CAROLINA BUSINESS - EPA OFFICIALS AND SYNALLOY'S INSURANCE BROKER, BE INCLUDED IN THE RECORD AT THE CONCLUSION OF MY REMARKS.

MR. CHAIRMAN, THIS LEGISLATION CONTAINS NUMEROUS SAFEGUARDS DESIGNED TO ENSURE THAT THOSE FACILITIES THAT AVAIL THEMSELVES OF THE EXTENSION ARE IN COMPLIANCE WITH THE REQUIREMENTS OF THE SOLID WASTE DISPOSAL ACT. THESE FACILITIES MUST CERTIFY THAT THEY ARE IN COMPLIANCE WITH NOT ONLY THE GOUNDWATER MONITORING REQUIREMENTS OF THE SOLID WASTE DISPOSAL ACT, BUT ALSO, THAT THEIR FACILITY IS NOT CONTAMINATING GROUNDWATER OR THAT THERE IS A COMPLIANCE MONITORING OR CORRECTIVE ACTION PROGRAM IN PLACE.

MR. CHAIRMAN, THIS SHORT EXTENSION IS ONLY A TEMPORARY MEASURE. IT SIMPLY AFFORDS CONGRESS THE TIME NEEDED TO ADDRESS THE UNDERLYING PROBLEM -- THE UNAVAILABILITY OF LIABILITY INSURANCE.

THIS LEGISLATION IS PARTICULARLY TIME SENSITIVE. WITHOUT THIS LEGISLATION, MANY BUSINESSES THAT ARE ACTING IN AN ENVIRONMENTALLY

RESPONSIBLE MANNER MAY BE FORCED TO CEASE THEIR OPERATION. THIS WILL HAVE AN ADVERSE IMPACT ON NOT ONLY THOSE INDIVIDUALS WHO COUNT ON THESE BUSINESSES FOR JOBS, BUT ALSO THE SURROUNDING COMMUNITY THAT LOOKS TO THESE BUSINESSES TO CONTINUE THE PROPER MANAGEMENT OF THEIR EXISTING LAND DISPOSAL FACILITIES. I URGE YOU AND THE OTHER MEMBERS OF THIS COMMITTEE TO MOVE THIS LEGISLATION EXPEDITIOUSLY THROUGH THE COMMITTEE AND THROUGH THE SENATE.

MR. CHAIRMAN, I WISH TO THANK YOU AGAIN FOR HOLDING A HEARING ON THIS IMPORTANT MATTER, AND FOR ALLOWING ME TO TESTIFY HERE TODAY.

synalloy
CORPORATION
[illegible] SOUTH CAROLINA [illegible]
(803)585-3605

September 17, 1985

Docket Clerk
Office of Solid Waste (WH-562)
U. S. Environmental Protection
Agency
401 M Street, SW
Washington, DC 20480

Re: Comments regarding standards applicable to owners and operators of hazardous waste treatment, storage and disposal facilities; liability coverage.

Dear Sir:

I am chairman of Synalloy Corporation, a diversified manufacturing firm, consisting of six operating companies in five Southern states with seven plants. We are headquartered in Spartanburg, South Carolina and have 500 employees. Our principal products are textiles, stainless steel fabricated products, pipe and pressure vessels. As a small manufacturer with a net worth of 18 million dollars, Synalloy cannot meet the financial responsibility test (36 million dollars net worth) and must obtain liability insurance to meet the financial responsibility standards set by the Resource Conservation and Recovery Act (RCRA), as amended.

On March 20, 1985, our insurance broker, Marsh and McLennan, notified us that our insurer for environmental impairment liability insurance (EIL), Evanston Insurance Company, had decided to withdraw from the EIL market and that coverage through the company would no longer be available. Our broker immediately began to seek a new source of coverage, but without success. Attached is a letter from Mr. Chris Ryan, of Marsh and McLennan, describing in some detail our attempt to obtain EIL coverage to date. Since the Environmental Protection Agency adopted its interim enforcement policy in response to the depressed state of the insurance market, our company has cooperated with South Carolina's Department of Health and Environmental Control and has submitted monthly reports documenting our good faith effort to obtain insurance.

SYNALLOY CORPORATION

After reviewing the possible regulatory approaches presented by EPA in the Wednesday, August 21, 1985, Federal Register, I believe that only proposal (D), which authorizes waivers on a case-by-case basis, will allow smaller, environmentally sound comapnies like Synalloy to remain in business. This approach would also allow the insurance industry to develop additional insurance policies so that the market can operate as anticipated when RCRA's regulations were promulgated in 1982. A case-specific waiver for a limited time would not tend to give firms obtaining a waiver much, if any, unfair economic advantage since the procedure would only be necessary for those firms too small to qualify under RCRA's financial test. It would tend to level the field for small firms against larger ones.

In assessing good faith efforts to obtain insurance, the Agency can benefit from experience gained during the course of the interim rule which expires November 8, 1985. Efforts to obtain insurance should be documented on a regular basis and should include evidence of an effort to contact all insurance companies believed by the Agency to offer EIL coverage. Both as an indication of good-faith effort and as a measure of "insurability," a company's compliance record with federal and state environmental agencies should be reviewed as a part of an application for waiver and, in fact, the company's entire safety record should be subject to Agency review; for example, a company's lost time accident incident rate history should be compared to industy wide averages as a measure of corporate responsibility. By utilizing such objective standards, a waiver mechanism need not become an escape route for those facilities which cannot obtain coverage because of clear health and environmental risks.

Finally, the Agency can minimize its regulatory burden by requiring applicants for waiver to undergo a thorough independent risk assessment by an approved private risk assessor, as insurance companies often already require. The Agency need not perform its own risk analysis on the facilities of each and every firm that applies for a waiver. Synalloy's subsidiary, Blackman-Uhler Chemical Company, recently completed a reassessment of its Spartanburg, South Carolina and Augusta, Georgia facilities by Risk Science International of Washington, DC.

SYNALLOY CORPORATION

In summary, a company's good faith effort and an estimate of its "insurability" should be judged by its environmental compliance record, its plant safety record and independent safety assessments - all factual and objective standards that should be sumbitted as a part of a waiver request. Without the option of a case-specific waiver of the liability coverage requirements, environmentally sound companies too small to meet RCRA's financial responsibility test and unable to obtain EIL insurance in the marketplace will face the prospect of closure.

Very truly yours,

W. D. Holland
Chairman &
Chief Executive Officer

WDH/jm

Attachment A - Letter of Marsh & McLennan on Current Status EIL
Attachment B - Letter of Marsh & McLennan on Availability of Insurance
Attachment C - Notice of Intention not to Renew Existing Insurance
Attachment D - Letter from SC DHEC on Financial Requirements for Hazardous Waste Management Facilities

bcc: Knox White / Haynsworth Firm
Ken Foster
Royal King
Dan Healy
Keith Smith

Marsh & McLennan

Attachment A

September 16, 1985

Mr. W.D. Holland
Chairman and Chief Executive Officer
Synalloy Corporation
PO Box 6527
Spartanburg, SC 29304

Re: Nonsudden Environmental Impairment Liability Insurance

Dear Mr. Holland:

I have been asked to summarize the efforts of Marsh & McLennan as your insurance broker in the placement of nonsudden environmental impairment liability insurance during this past year.

As you will recall, you had placed nonsudden environmental impairment liability through another broker in the year 1983 when liability insurance coverage was first required for your chemical manufacturing sites in Augusta, GA and Spartanburg, SC. In 1984 our Greenville office of Marsh & McLennan, Inc. became involved in marketing your EIL insurance and we secured a renewal through Shand Morahan & Company for the year July 7, 1984 to July 7, 1985.

In 1983, there were approximately ten insurance carriers offering nonsudden EIL insurance and by mid-1984 the number had been reduced to approximately five underwriters. The number of underwriting companies had been reduced significantly because of claim activity, generally inadequate rates and a relatively small number of clients. As 1984 progressed and we entered 1985, more insurance carriers dropped out of the nonsudden EIL market, including Shand Morahan, who was your underwriter.

In January, 1985 I wrote you to summarize the deteriorating situation with environmental impairment liability insurance and outlined a program for your July 7, 1985 renewal effort. Over the next 60 days, Synalloy updated their EIL engineering survey by Risk Science International and completed new applications for submittal to insurance markets. In early April, 1985 we submitted applications to American International Group and Swett & Crawford.

By April, 1985 only two underwriters were still active and the remaining carriers had all dropped out of the market due to reinsurance treaty problems or other poor underwriting results.

By July 7, 1985 the two markets that were available, American International Group and St. Paul both declined to provide coverage for Synalloy Corporation.

A relatively new insurance market, Pollution Liability Insurance Association (PLIA) is now underwriting very selectively in the EIL insurance market, however, in order to be underwritten by them, a member company must write your primary general liability, automobile and worker's compensation insurance. None of their member companies have expressed any interest in underwriting a chemical manufacturer.

Travelers Insurance has provided a very limited amount of EIL coverage, however, they also do not willingly underwrite chemical manufacturers and the primary general liability and automobile insurance must be written through them for them to consider pollution liability.

There are no new insurance underwriters providing coverage that we are aware of at this time and therefore we have no immediate prospects for placing nonsudden environmental liability insurance for your corporation. When and if additional markets become available, we will contact you immediately and make a submittal to them.

If I can provide you any additional information, as respects the placement of this insurance coverage, please let me know.

Sincerely,

H. Chris Ryan, CPCU
Vice President

HCR/te

Marsh & McLennan

March 26, 1985

Mr. William D. Holland
Chairman of the Board
Synalloy Corporation
PO Box 5627
Spartanburg, SC 29304

Re: Environmental Impairment Liability Insurance

Dear Mr. Holland:

As your insurance broker for nonsudden and gradual pollution coverage, we wanted to make you aware of the critical situation that exists as respects the lack of insurance underwriters willing to provide this coverage for manufacturing facilities in 1985. As you will recall, we initially placed your coverage in 1984 and, at that time, there were eight insurance carriers that were agressively underwriting this exposure for industry; however, due to many factors, this group has been reduced to two and one of those is a questionable future participant.

The serious problem that faces Synalloy Corporation is that both South Carolina and Georgia require you to provide a financial guarantee that will serve to protect the general public in event of liability claims due to gradual and nonsudden pollution from your manufacturing facilities in each state. The majority of manufacturers provide the financial guarantee through insurance policies

Both of the remaining underwriters are very reluctant to write chemical-related manufacturing companies such as yours and would rather utilize their insurance capacity to underwrite less hazardous risks. Marsh & McLennan is the largest insurance broker in the United States and we cannot guarantee you that we will be able to place insurance coverage for you by your July' 85 renewal date.

We understand that if we cannot place this coverage you will have to shut down your two chemical plants because the state required financial guarantees cannot be met.

Of course, this is not an isolated problem for Synalloy Corporation, but effects chemical and other manufacturing companies throughout the United States. A similar lack of private sector insurance coverage in the past led to development of the federal flood insurance program and various state "Assigned Risk" insurance program for high hazard automobile and workers compensation coverages.

It would seem reasonable for you to request, through your legislative representatives, some state or federal action that would provide you and other manufacturers with some relief from the state and federal government requirements for gradual and nonsudden pollution financial guarantees. The specific method as to how to provide the relief is subject to much discussion, which could be addressed through committee representatives from the insurance industry, manufacturing industry and governmental bodies.

If you would like to discuss this subject in more detail, I would be pleased to meet with you and review other information available from our company.

Sincerely,

Chris Ryan

H.C. Ryan, CPCU
Vice President

HCR/vb

CERTIFICATE OF MAILING

March 14, 1985

SYNALLOY CORPORATION -
BLACKMAN UHLER CHEMICAL DIVISION
P.O. Box 5627
Spartanburg, SC 29304

RE: NOTICE OF INTENTION NOT TO RENEW
Policy No. IE 100384
Coverage: Claims Made Environmental Impairment Liability
Period: From July 7, 1984 to July 7, 1985
Insurer: Evanston Insurance Company

Gentlemen:

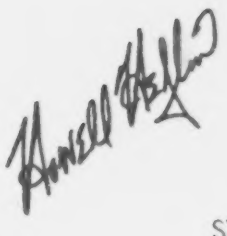
Please take notice that the above insurance issued to you through the Evanston Insurance Company and which expires as indicated above will not be renewed by the Insurer. We have recently decided to withdraw from this market and this coverage is no longer available through us.

Please contact your broker if there are questions. We appreciate your participation in our program.

Very truly yours,

Special Risk Department
PWA/mlp

cc: Mary Pope
MARSH & McLENNAN



STATEMENT BY SENATOR HOWELL HEFLIN
HEARING ON H. R. 3917
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
FEBRUARY 24, 1986

MR. CHAIRMAN:

I COME BEFORE YOU TODAY IN SUPPORT OF H.R. 3917, A BILL TO EXTEND THE TIME PERIOD FOR COMPLIANCE WITH THE FINANCIAL RESPONSIBILITY REQUIREMENT UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT.

MR. CHAIRMAN, I COMMEND THE OTHER BODY AND MY COLLEAGUES WHO SERVE ON THIS COMMITTEE FOR RESPONDING TO AN EMERGENCY SITUATION WHICH IS NOT THE FAULT OF LEGITIMATE PEOPLE ENGAGED IN THE PROPER DISPOSAL OF HAZARDOUS WASTE. THIS BILL PROVIDES A REASONABLE, TIGHTLY-DRAWN EXTENSION FOR THOSE COMPANIES THAT FIND THEMSELVES IN FULL COMPLIANCE WITH THE LETTER AND SPIRIT OF RCRA BUT ARE UNABLE TO PURCHASE LIABILITY INSURANCE WHICH IS REQUIRED BY THE FINANCIAL RESPONSIBILITY PROVISIONS OF THAT ACT.

MR. CHAIRMAN, AS YOU KNOW, LAST YEAR CONGRESS DECIDED TO SET NOVEMBER 8TH AS THE DEADLINE FOR MEETING RCRA MANDATED GROUND WATER MONITORING AND FINANCIAL RESPONSIBILITY REQUIREMENTS. HOWEVER, AS SO MANY OF

OUR NATION'S INDUSTRIES HAVE COME TO REALIZE, LIABILITY INSURANCE MARKETS HAVE SIMPLY BECOME NON-EXISTENT. IT SEEMS THAT LIABILITY INSURANCE IS NOT AVAILABLE AT ANY PRICE.

DESPITE MONTHS AND MONTHS OF SEARCHING FOR ADEQUATE COVERAGE TO COMPLY WITH THE STRICT STANDARDS AS SET FORTH BY RCRA, THESE COMPANIES HAVE BEEN CONFRONTED WITH EITHER OUTRIGHT REFUSALS OR INADEQUATE COVERAGE LIMITS AVAILABLE TO THEM IN THE INSURANCE MARKETS. AS A RESULT, THESE COMPANIES HAVE BEEN NOTIFIED BY THE ENVIRONMENTAL PROTECTION AGENCY OF THE LOSS OF THEIR INTERIM STATUS AND ORDERED TO FILE A CLOSURE NOTICE.

MR. CHAIRMAN, MY HOME STATE OF ALABAMA HAS BEEN SEVERELY IMPACTED BY THIS SITUATION. IN THE STATE OF ALABAMA, SOME 24 MAJOR FACILITIES, FROM ALL PARTS OF THE STATE, FROM MOBILE TO BIRMINGHAM TO HUNTSVILLE, HAVE LOST INTERIM STATUS BECAUSE THEY COULD NOT MEET THE FINANCIAL REQUIREMENTS AS LIABILITY INSURANCE WAS NOT AVAILABLE. THIS WILL EFFECTIVELY SHUT DOWN THE OPERATIONS OF THESE COMPANIES COMPLETELY AND, AT THE SAME TIME, DISPLACE THOUSANDS OF WORKERS WHOSE JOBS ARE VITALLY IMPORTANT TO THE ECONOMIC WELL BEING OF OUR STATE. ALABAMA SIMPLY CANNOT AFFORD THE TREMENDOUS AND SUDDEN LOSS OF INDUSTRY AND JOBS THAT THIS SITUATION WOULD CAUSE. THE IRONY OF THIS SITUATION IS THAT A REQUIREMENT OF ONE ENVIRONMENTAL LAW, THE CLEAN WATER ACT,

CALLED FOR THE BIOLOGICAL TREATMENT SYSTEM THAT THESE FIRMS WERE REQUIRED TO INSTALL. NOW THE SAME FIRMS, WITHOUT THE PASSAGE OF THIS LEGISLATION, WILL BE SHUT DOWN UNDER ANOTHER ENVIRONMENTAL LAW -- RCRA.

WITHOUT THIS LEGISLATION, BUSINESSES THAT DEPEND UPON ON SITE LAND DISPOSAL TO MAKE THEIR OPERATION VIABLE, WILL BE FORCED TO CLOSE. THIS LEGISLATION PROVIDES FOR THOSE SAME BUSINESSES -- UNDER STRINGENT SAFEGUARDS -- THE ABILITY TO CONTINUE TO OPERATE. THE EXTENSION GRANTED BY THIS LEGISLATION WILL GIVE THESE OTHERWISE COMPLYING INDUSTRIES A CHANCE TO MEET THE FINANCIAL RESPONSIBILITY REQUIREMENTS PROMULGATED BY THE ENVIRONMENTAL PROTECTION AGENCY AND CONTINUE TO PROVIDE VITALLY IMPORTANT JOBS AND MUCH NEEDED AND USEFUL PRODUCTS TO OUR NATION.

I URGE MY COLLEAGUE WHO SERVE ON THIS COMMITTEE TO SUPPORT H.R. 3917.

Statement

by

Senator Paula Hawkins

Before the

Subcommittee on Environmental Pollution

of the

Committee on Environmental and Public Works

United States Senate

Mr. Chairman, it is a great pleaure that I introduce a witness on your next panel, Mr. William R. Boakes, Vice President for Development and Engineering of the Sikes Corporation located in Lakeland, Florida.

Mr. Boakes is here today to speak not only for Sikes Corporation but for many reputable companies across the nation. These companies, through no fault of their own, are facing imminent shut-down. Although Sikes Corporation has made every effort to comply with the law, due to the unavailability of insurance for non sudden accidents, the company has been unable to meet a single requirement -- financial responsibility certification.

I appreciate your calling this hearing today, Mr. Chairman. As you know, I have written to both yourself and to the distinguished Chairman of the Full Committee on Environment and Public Works, urging quick action to address this national problem before more companies with safe, clean operations are forced to shut down. I thank Mr. Boakes for testifying today and I look forward to working with the committee to resolve this issue.

Senator CHAFEE. We are delighted to welcome Congresswoman Johnson here. Why don't you lead off.

STATEMENT OF HON. NANCY L. JOHNSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CONNECTICUT

Congresswoman JOHNSON. Thank you very much, Senator Chafee. It is a pleasure to be here before your subcommittee.

As you know, I worked very hard to see that H.R. 3917 passed the House last December, and I want you to know how grateful I am for your interest and the good work of your staff and so many others in the Senate in trying to move that legislation forward.

There is much at stake here today. It is not just a question of the survival of a small business that hard working people have invested their time and resources in over many years. It is certainly not just a question of this great Nation compromising its drive to assure future generations the quality of water, air, and soil that our lives depend upon. It is today a question of whether Government is capable of responding in a timely and rational fashion to reality, and whether Government can justify, embody, if you will, the fundamental faith that citizens must have in their Government, and on which democracy depends. This faith will be deeply shaken if I have to return to the people I represent, hard working people who do work that is critical to producing durable aircraft engines, and many other things, with the news that, regardless of the hundreds of thousands of dollars their employers have spent to ensure the protection of the environment and make their part B permit applications, they will lose their jobs because their employers cannot buy a product that is not on the market.

The government cannot require the impossible and must not cost people their livelihoods in so doing. As many as 300 jobs in my district alone are at stake here, and I implore you to consider the goals of the House bill carefully, but with an eye on the calendar.

The remedies that my companies and others like them seek will not result in additional Government outlays, and will not put our environment at risk. Because we agree with the goals of the Resource Conservation and Recovery Act, we seek not to dilute it, but to enhance it by allowing companies, in full compliance with the environmental protection aspects of RCRA, to proceed with their important work, and in many cases with orderly and environmentally safe shutdowns of lagoons and dumps.

To do this, we must recognize the unavailability of insurance, and prevent some of these men and others from being tried as felons.

Mr. Chairman, I am proud to introduce two responsible company presidents from my district who are in the metal finishing business. Over 250 employees depend on the business decisions of these gentlemen, whether they are based on logical profit motives or on government directives.

Though drawn with the best of intentions, the financial responsibility section of RCRA has succeeded in placing these men in extreme jeopardy. Some of those I represent have been served with papers by EPA. In one case, the decision was made to ship wastes

offsite at an annual cost of nearly half a million dollars, not a viable long-term solution.

At this point, let me defer to the hands-on expertise of Mr. Mark Hyner, president of Whyco Chromium in Thomaston, and Mr. Bob Genereau, president of Stanley Plating in Bristol, CT.

I personally can attest to their environmentally responsible records as businessmen, as citizens, and as leaders in their fields.

Thank you very much, Mr. Chairman.

Senator CHAFEE. Why don't you proceed, Mr. Hyner.

Thank you, Mrs. Johnson. I know that you have a busy schedule, and if you wish to be excused, that would be perfectly all right. If you can stay, fine. There are great demands on your time, so if you have to go, feel free to do so.

Congresswoman Johnson. Thank you very much.

Senator CHAFEE. Mr. Hyner.

STATEMENT OF MARK HYNER, PRESIDENT, WHYCO CHROMIUM CO.

Mr. HYNER. Senator Chafee, members of the subcommittee, counsel, and staff.

My name is Mark Hyner, and I am president of Whyco Chromium Co., located in Thomaston, CT. It is indeed a pleasure to be here again, and I thank you for your invitation to appear.

For your background information, Whyco Chromium is engaged in the metal finishing and electroplating business. We employ 165 people, have sales of $13 million, and last year had a payroll in excess of $4 million. We also spent, last year, $1.6 million for pollution control operations, and this figure does not include substantial capital expenditures in that area.

Senator CHAFEE. When you say, $1.6 million for pollution control, you mean those on-going expenses annually?

Mr. HYNER. Yes, sir.

Senator CHAFEE. Is that an annual expense?

Mr. HYNER. The annual expense to treat the water and so on.

Senator CHAFEE. Out of $13 million total revenue?

Mr. HYNER. It is 12.1 percent of sales, sir.

Senator CHAFEE. Thank you.

Mr. HYNER. On three previous occasions, it has been my privilege to testify before this subcommittee or its counterpart in the House. On all occasions, I have asked that you adopt strong, reasonable, and environmentally sound laws. In fact, on the last occasion, I was asked here by the Clean Water Action project because of those strong proenvironmental views. I mention this only to better acquaint you with my company's history with regard to Federal environmental programs.

Further, I wish to state that Whyco fully agrees with the purposes and goals of the Resource Conservation and Recovery Act. To that end, we have implemented and will continue to implement waste recycling and reclamation procedures within our manufacturing facility. However, our best efforts in this regard will not totally eliminate our need for solid waste disposal, especially those wastes created as a result of our water treatment program.

Therefore, a few years ago, Whyco made the decision to seek interim status as a disposal facility under RCRA. We operated this facility to dispose only of our own waste. On November 8, 1985, we filed our part B application, and we were able to certify that we met all RCRA regulations and requirements except one. My company was neither large enough to meet the financial tests, nor were we able to obtain environmental liability insurance. Thus, on that same day, November 8, we closed our disposal site and began shipping our solid waste offsite. We did this so that we would remain in strict compliance with the law.

Regarding insurance, I can assure you that I have personally explored every possible avenue where there existed even the faintest hope of acquiring a policy. We currently have two applications pending, but I have already been told that neither carrier will issue coverage anywhere near the $3 million to $6 million RCRA requirement.

To the best of my knowledge, no market exists today at any price. As a result of this dilemma, all of Whyco's future plans are currently on hold. The engineering portion of our part B application, which cost us over $50,000, contains a proposal to build the first state-of-the-art hazardous waste disposal site in Connecticut. As far as I have been able to determine, it would also be the first of its kind in New England.

In the interest of time, I will skip the details of the facility. However, I wish to state that if we are able to build this facility, the end result would be that the probability of anything entering the environment from the site would be near zero, yet we are prevented from building it because the law requires me to buy something which is not for sale.

At present, our only alternative is to continue to ship off site. Environmentally and economically, it makes absolutely no sense. Whyco's wastes should remain on site where our trained staff can control them. They should remain in a monofill where there is no chance of incompatible materials coming anywhere near them. They should not be transported for hundreds of miles over the open road.

Additionally, I do not want the liability for the cleanup costs if something goes wrong at another site. Lastly, I do not want to throw away $500,000 of additional taxable income per year only to have that result in more potential environmental harm than good.

Whyco has always prided itself on being a model environmental citizen and a strong supporter of environmental goals. Now we need your help in order that we may continue to be a model citizen. We are prepared to purchase whatever is necessary to meet the requirements of the law, but that product must be there for us to acquire.

Please understand that Whyco's problem is not one of operational or physical compliance, rather it is one of regulatory compliance. Therefore, I urge you to please move as quickly as possible to enact the legislation that we are now considering. The only change I suggest is that the language in section G of the substitute text for H.R. 3917 revert back to the House version. I would not like to see the Administrator steered toward only one alternative to insurance. It

would be far better to have several alternatives as H.R. 3917 suggests.

I would note that EPA has already suggested several alternatives, for example, those listed in the Federal Register on August 21, 1985.

Thank you for your time and, again, for your invitation.

Senator CHAFEE. Thank you very much, Mr. Hyner.

Now why don't we go with Mr. Genereau.

STATEMENT OF ROBERT N. GENEREAU, PRESIDENT, STANLEY PLATING CO.

Mr. GENEREAU. Good afternoon, Mr. Chairman, and distinguished members of the subcommittee.

I am Robert N. Genereau, president of the Stanley Plating Company of Bristol, CT. It is an honor and privilege for me to testify before you as our Nation continues to seek means to achieve a safe and clean environment.

I am speaking here today in support of H.R. 3917 primarily as president of Stanley Plating Co. I would like to point out my record of involvement in environmental affairs as the former director of the National Association of Metal Finishers, as chairman of its RCRA committee, and currently a director of the Connecticut Hazardous Waste Management Service.

Stanley Plating is a 40-year metal finishing company which employs 100 people, and serves such vital industries as defense, automotive, aircraft, aerospace, computer, and construction industries. Stanley is proud of its regulatory compliance record, which has been called examplary by our regulatory agency. We have spent over $3 million to clean water and manage hazardous waste during the period in which we generated but $40 million in gross revenues.

We have never been cited by an environmental agency for any type of violation.

Our reason for being here today is a result of the 1984 amendments to RCRA wherein our land disposal facility lost its interim status on November 8, 1985, unless it submitted its complete application for a full part B permit and certify that it was in compliance with the ground water monitoring, financial assurance, and insurance requirements.

We have been and are in compliance with all of these requirements with the exception that we cannot secure insurance policies as required. In fact, a review of insurance sources suggested by EPA as late as last week indeed confirmed that the insurance situation has not improved.

I would like to describe for you a little bit about our process and how we find ourselves in this dilemma. In our waste water treatment process, we utilize a facility commonly called a lagoon. This lagoon was designed for the settling of heavy metals and was approved as part of our NPDES Permit Program as state-of-the-art technology. It was not designed as a disposal or storage facility, nor will it ever be used as such. These lagoons have been extremely effective and are the major reason why we have been able to meet Connecticut's more stringent waste was discharge limits.

I would like to point out at this time that we are well into our 3d year of ground water monitoring, and we can show evidence of absolutely no degradation of ground water.

As a result of a costly engineering study performed in 1983, we concluded that unless regulatory change provides some other incentive to close the lagoons, we would continue to utilize them. The incentive came. The effects of the 1984 amendments, coupled with what was becoming an obvious difficulty, if not impossibility, of securing insurance, led Stanley to the ultimate conclusion that we must close the lagoon in order to comply with the new laws.

This constituted a major undertaking given the fact that this closure would result in a total redesign of our waste water treatment system. In the early fall of 1985, we voluntarily approached the Connecticut Department of Environmental Protection, with whom we entered into a consent order providing for the closure of the lagoon in accordance with a schedule that would allow time to design, engineer, construct, and debug a new water treatment system.

This consent order has further benefits over simple compliance with the 1984 RCRA amendments. It will result in the prompt closure of the unit, whereas the amendments simply call for the use of the unit to cease.

It was never our intent, whether closing the lagoons or not, to do without the appropriate insurance. The one policy which was offered in June 1985 and supplied to Stanley in the fall of 1985, in our opinion, does not meet the RCRA requirements. This opinion is not self-serving, it was confirmed by our technical staff, EPA, the Connecticut DEP, our insurance agent, and an attorney.

Due to the deficiency of the policy, and negative comments by regulatory personnel, Stanley could not in good conscience submit this certification. In response, we filed a request for variance with EPA. We would refer you to our written comments on pages 6 through 9 of our detailed discussion of deficiencies in the only EIL policy offered.

While Stanley has not been able to acquire insurance, we do not pose any environmental problems past, present, or anticipated. Moreover, we are in compliance with the State consent order requiring accelerated closure of the lagoon.

In conclusion, we strongly support the amendments to RCRA section 3005(e)(4) as proposed in H.R. 3917, providing for an extension of the date for certification of compliance with the financial insurance requirements.

While pages 10 and 11 of our written comments identify certain necessary clarification of the language of H.R. 3917, it is our opinion that this amendment recognizes the real difficulties many law abiding and environmentally conscious companies have encountered in their good faith attempts at compliance with this important legislation; to emphasize that we support change only to the subpart (h) insurance requirements while preserving the current ground water protection and letters of credit requirements.

Obtaining letters of credit and installing the ground water protection systems are requirements which Stanley has met, and which all companies acting in good faith should have met. Given

EPA pronounced enforcement intention, we sincerely request your timely support for this all important legislative amendment.

Thank you, Mr. Chairman.

Senator CHAFEE. Thank you very much, Mr. Genereau.

Now we will take Mr. Boakes.

STATEMENT OF WILLIAM R. BOAKES, VICE PRESIDENT, DEVELOPMENT AND ENGINEERING, SIKES CORP.

Mr. BOAKES. Thank you, Mr. Chairman.

Mr. Chairman, and members of the subcommittee, my name is Bill Boakes, and I am vice president of development and engineering for Sikes Corp. Thank you very much for the opportunity to testify before you today on an issue of vital concern to our company.

Sikes Corp., through its Florida Tile Division, is among the three largest domestic manufacturers of ceramic wall and floor tile in the United States. We believe that we produce the best products of their kind at our operating facilities in Lakeland, FL, Lawrenceberg, KY, and Shannon, GA.

In our production processes in Florida and in Kentucky, ceramic tile is covered with a thin coating of glaze to give it the desired smooth glossy finish. This glaze material contains small amounts of lead, similar to that contained in leaded crystal. A relatively high volume of glaze waste material is generated by washing and rinsing our process equipment. For many years, we have deposited this waste in surface impoundments located on our property.

The glaze waste generated at our Florida and Kentucky operations contains a sufficient concentration of lead to be considered hazardous waste under Environmental Protection Agency regulations implementing the Federal Resource Conservation and Recovery Act.

In response to RCRA regulatory requirements, Sikes Corp. sought and obtained required nonsudden liability insurance coverage from the Great American Surplus Lines Insurance Co. We were advised in April 1985, that the nonsudden liability insurance coverage that we had in place would not be renewed. Great American was simply no longer offering this type of coverage.

We then began extensive efforts, independently and through our insurance broker, Arthur J. Gallagher & Co., to purchase nonsudden liability insurance to avoid any break in coverage. Despite our continuing best efforts, and despite the fact that we had applications pending with three insurance companies for several months, we have not been able to obtain this coverage.

Sikes Corp., therefore, finds itself in the very uncomfortable position of continuing its production, including the generation and management of glaze waste arguably in violation of Federal law. The company simply has no other option, short of closing down its operations in Florida, in Kentucky, and ultimately in Georgia.

There are no reasonably available alternative disposal techniques in light of the volume of materials generated at our facilities. We generate 54,000 gallons of glaze per day at our Kentucky facility. Temporary onsite storage is not feasible, and the estimated costs for offsite disposal range from $22,000 to $73,000 per day. Our

company simply cannot afford this level of increased costs. Sikes Corp.'s daily net income, before taxes, is only about $21,000 per day.

Ultimately, Sikes Corp. wants to get out of the hazardous waste generation business. Indeed, hazardous waste elimination became a prime objective of the company. When we built our Shannon, GA, facility in 1981, we had the luxury of designing a manufacturing process that would not generate hazardous wastes. Therefore, our Georgia facility is not subject to RCRA requirements, but it is much easier to design a new facility to avoid environmental concerns than it is to retrofit existing operations.

Sikes Corp., however, has made great strides toward developing a glaze waste recycle process at the Florida facility. This process is the result of many months of research and development activity and the expenditure of nearly a half million dollars. I am now pleased to report to you that our Florida recycle facility is now operational.

Having successfully designed a recycle system for our Florida facility, we have initiated a similar program to stop the waste generation and disposal of glaze waste in Kentucky. We expect to have this system in place and operational by November 1986.

We do not believe that Congress had Sikes Corp. or companies like it in mind when it enacted the November 8, 1985, deadline, nor do we think that Congress intended to impose a financial responsibility requirement that was impossible to meet.

In summary, Sikes Corp. had at one time nonsudden liability insurance coverage in place, but despite its best efforts, and through no fault of its own, it was unable to obtain renewed coverage.

Sikes Corp. was in compliance with all other applicable RCRA regulatory provisions, including ground water monitoring requirements, and remaining fiscal responsibility requirements as of November 8, 1985.

Because of the nature and the volume of the glaze waste involved in Sikes Corp.'s production processes, the company has no reasonable alternative storage or disposal methods available to it.

Sikes Corp. wants to get out of the hazardous waste business as soon as possible. To get out of the hazardous waste business, however, we must be allowed to stay in the ceramic tile business.

We ask the support of this subcommittee in enactment of H.R. 3917 so that Sikes Corp. can have an adequate opportunity to implement its total recycle program, without going out of business or facing enforcement action.

Thank you very much, Mr. Chairman.

Senator CHAFEE. Thank you very much, Mr. Boakes, for that testimony.

Before we start with the questions, I want to welcome the distinguished ranking member of the subcommittee, Senator Mitchell.

Senator Mitchell, if you have a statement, this would be a good time to give it.

OPENING STATEMENT OF HON. GEORGE J. MITCHELL, U.S. SENATOR FROM THE STATE OF MAINE

Senator MITCHELL. Thank you very much, Mr. Chairman. I do have a statement which deals with the second subject that is to be taken up, but I would like to make the statement because I think that this is an important issue that these witnesses raised, and we do have an important issue following that.

I am pleased, Mr. Chairman, that we are having this hearing on issues arising from the 1984 Resource Conservation and Recovery Act Amendments. As you know, those amendments were fairly complex, so it is not surprising that there are issues of implementation which must be addressed.

One of the unforeseen events that has occurred since those amendments were enacted is the virtual disappearance of environmental insurance. The RCRA amendments required evidence of financial responsibility in order to avoid losing one's interim status, it is clear that there have been some problems in certifying compliance with the November 8, 1985, deadline.

I appreciate the testimony of the witnesses here today, and I will have some questions of them, as you will, I know, Mr. Chairman.

Also unforeseen is that EPA would embark on a land disposal ban rulemaking that appears to contravene congressional intent as contained in the 1984 amendments. We carefully considered the issue of land disposal of these wastes for years before the RCRA amendments were passed, and signed into law by the President. We determined that there should be a presumption that such disposal methods were inferior, and those methods should be rejected where possible in favor of treatment or other disposal methods.

I am deeply concerned that EPA intends to so dilute our presumption against land disposal of hazardous wastes that the presumption is, in effect, reversed. EPA intends to make greater efforts permitting such land disposal of these toxic waste than it does enforcing the phased-in ban required by Congress, signed into law by the President.

We provided that this presumption could be overcome under the law if EPA ruled favorably on a petition for exemption from the ban. EPA proposes to do so, however, by its own rulemaking on land disposal ban, and chooses not to wait for any such petition.

We provided that these petitions can be approved only if EPA determines that there is a reasonable certainty that there will be no migration of the wastes. EPA provides that affected facilities must meet weaker acceptable migration standards.

We provided that the treatment standards can be used, the treated wastes disposed of on land only if such treatment substantially reduces the toxicity of the wastes, or the likelihood of migration. EPA provides that a treatment standard may be applied unless it is excessive, and then EPA created health-based standards would apply.

Perhaps most frustrating of all, we provided that EPA shall—not may, not could, not can, but shall—provide us advance notice of publication of proposed regulations or guidelines. EPA offered us a briefing, despite our request, only after the proposed regulations have been signed by the Administrator.

More effective use of this provision could have prevented EPA from wasting hundreds of thousands of dollars with the massive proposed regulation about which the best that can be said is that it ignores the law.

I am deeply concerned that EPA has chosen to pursue a course so clearly rejected by the 1984 amendments. I hope that today's hearing will provide an explanation as to how the agency could waste such efforts and money on such an ill-considered proposal.

We have worked too hard to assure the citizens of this country that their water and their air will not forever be contaminated by toxic chemicals. In the RCRA amendments, we pressed for controls such as the land disposal ban in order to prevent the creation of future Superfund sites.

The EPA actions are not the result that I, or other Members of this Congress, intended. I assure that we will work to direct EPA back to the law, back to protecting this country's environment.

I thank you, Mr. Chairman.

Senator CHAFEE. Thank you very much, Senator Mitchell.

Mr. Hyner, you say, "quickly move to enact the legislation we are now considering," but, it seems to me, that legislation just postpones things, if I am right.

If I am right, Mrs. Johnson, in your legislation, you extend the status until June, and then there is a method of going beyond that to November. Where does that get us, if the problem is that you can't get the insurance?

Is there any suggestion to believe that insurance will be available in the interim? If not, we are going to be right back where we started from in November 1986, except that nothing will happen for a year.

Congresswoman JOHNSON. Mr. Chairman, if I may, you are absolutely right about what the legislation does. However, I felt strongly that my constituents shouldn't be exposed to what are very serious penalties in the law because they couldn't buy insurance that wasn't available.

By extending the period, we gave them, ourselves, and the industry a little more time to find alternatives. The bill does look for EPA to look into alternatives. I would also hope that we would look into such alternatives, as Mark suggested, in terms of monofills for example, and that we move much more aggressively in areas like sludge management and monofills, because metal hydrocide sludges represent the kind of wastes that we know a lot about, and that if managed responsibly are not hazardous.

I think there are alternatives for us. The purpose of this legislation is to give us time to set that direction, but to not expose them to what are very costly litigation situations, and possibly very severe penalties.

Senator CHAFEE. I would like to address this question to each of the panelists because it seems to me that the deadline of November of 1985 was no surprise. Everybody knew for a year that it was coming, and then it came, and you folks weren't prepared for it.

Mr. Hyner, perhaps, was, and he made arrangements to ship offsite. But the way the situation is now, both Mr. Genereau and Mr. Boakes are in violation of the law.

Mr. BOAKES. It would be arguable that I would be in violation of the law, yes, Senator.

Senator CHAFEE. I don't think that there is much of an argument. You may have a sympathetic case, but the facts are that you are violating the law. You haven't made alternative arrangements.

What are you asking us to do, Mr. Genereau?

Mr. GENEREAU. Mr. Chairman, in our case, and obviously that is the one that I think I can address better, as stated in the testimony, we were looking at the potential for continuing use of those lagoons, looking at retrofitting, et cetera.

I would like to say that that fact led us to try to make as intelligent a decision as we could about the utilization of those lagoons. I would say to you that it really was not until the amendments were forthcoming that we totally understood all of the requirements. There were some discussions about lining or not, clay lined or not, and we were somewhat up in the air as to where the regulations were going. That coupled with the fact that, at least in our case, the appearance that insurance would be available, that acceptable insurance would be available, was in our eyes apparent until the eleventh hour. We were continuing to monitor the situation, and it was in the eleventh hour when we received the only policy being offered prior to the deadline. We offered it up to EPA for comment, to our Connecticut DEP for comment, and then realized that, in fact, this policy was not acceptable.

So, in our case, and I think in many cases, it was a last minute situation. I think that there may be some people who think they have insurance coverage, and if they examine the policy carefully, they will find out that it doesn't meet the RCRA requirements.

I understand that under EPA's regulations, you can seek a variance from the Regional Administrator if you can demonstrate that the levels of financial responsibility requirements are not consistent with the degree and duration of risk associated with the facility. Have you sought such a variance?

Mr. HYNER. I haven't sought that yet. We intend to. You have to understand that what we are proposing is to build the first site of its kind in New England. We are talking about spending capital costs of upward of $600,000 to build a facility with double liners, leachate collection, leak detection, all of that on top of 2 feet of recompacted clay.

If you follow what is involved in building such a facility, there is virtually no way anything can escape into the environment. In fact, the leach detection system, or the leachate collection system, rather, would be tied directly into our already existing water treatment system.

The facility would be the best of its kind, but I have to be crazy to go out and spend $600,000 to build a facility with no assurances at all that I can operate it.

Senator CHAFEE. Can't you go to them and seek the variance?

Mr. HYNER. That is what is in my part B, the whole part B application revolves around this, and we intend to go to them to do that. But I am not going to go ahead and build it without assurances that I am going to be allowed to operate it, that would be rather foolish. Already, it will cost me this year $488,000, and that is minimum cost, if nothing changes, to haul offsite. I am talking about

putting an additional $600,000 in capital so I don't have to haul offsite.

Senator CHAFEE. Eventually, you will have to haul offsite.

Mr. HYNER. I hope not.

Senator CHAFEE. What are you m.oing to do with the stuff?

Mr. HYNER. I hope to be able to put it onsite, that is the whole idea of the thing. It is a 20-year facility, if we do nothing further in terms of minimization of waste, and we are embarked on a whole program on that as well.

Senator CHAFEE. You would have a landfill disposal system.

Mr. HYNER. That is correct.

Senator CHAFEE. That may eventually be caught by EPA as they go down the road and impose the requirements from RCRA that you have to eliminate hazardous wastes A, and then B, and so forth.

Mr. HYNER. As I said in my testimony, we have already begun to do that, and we are continuing to do that in terms of metal reclamation, waste reduction, and so on. That is why I said, if this facility were built, it would last 20 years if we do nothing. We expect it to last indefinitely simply because we are embarked on exactly that program. But the waste that would be put in there, don't forget, is the result of water treatment, it is the result of meeting the Clean Water Act, that is the whole point.

We are not talking about doing this to make money. We are not talking about accepting wastes from outside. We are strictly talking about the wastes that are generated from being good environmental citizens. The people in Connecticut have been meeting the Clean Water Act for the last 15 years, sir.

Senator CHAFEE. Mr. Genereau, and Mr. Boakes, you folks are running a considerable risk, never mind from EPA, but from potential litigants who might be harmed by the substances you are storing getting into the ground water.

Mr. GENEREAU. Mr. Chairman, I would like to address, if I may, part of the question that you asked earlier. We have so filed for a variance.

Senator CHAFEE. You have.

Mr. GENEREAU. Yes, sir.

One of the things that I would like to point out is time and timing. As mentioned previously in my comments, we requested comment from EPA on the only EIL offered. We got verbal communications that the policy did not meet the RCRA requirements.

We then went to the State of Connecticut. We just got notification, as of January 1986, that EPA would not document those comments in writing to us. So part of our concern, again, is timing, and so we filed for the variance.

I would just say to you, sir, that our ground water monitorings are now entering into their third year, and the results of those tests indicate that there is absolutely no degradation of the ground water surrounding our facility.

Senator CHAFEE. Senator Mitchell.

Senator MITCHELL. Thank you, Mr. Chairman.

As I understand the testimony, Mr. Hyner, you made a decision to ship offsite at a substantial cost to your company in order to remain in compliance with the law. Is that correct?

Mr. HYNER. Yes, sir.

Senator MITCHELL. Did you use the figure $488,000 per year?

Mr. HYNER. Yes, in addition to the $1.6 million I am already spending on treating.

Senator MITCHELL. So if you are spending $488,000 a year to ship offsite, and for $600,000 you can build a facility onsite, it is not quite as crazy a decision as you suggested that it was, because in a little over 1 year, you would pay for the facility.

Mr. HYNER. I said that it would be crazy, if I couldn't use it.

Senator MITCHELL. Mr. Boakes and Mr. Genereau, I understand from your testimony that you have not pursued a comparable course of action. You have not done what Mr. Hyner did, which was to establish an alternative method of disposal and remain in compliance with the law. You have chosen, rather, to continue the current method in what appears, at least, to be a clear violation of the law.

So my question to you is, Did you investigate alternative methods and determine that they were not feasible because of costs and, therefore, chose to take the course of action that you are now pursuing?

Mr. BOAKES. In the case of Sikes Corp., we did investigate alternate disposal methods, which ranged from $78,000 to $22,000 per day, and the company makes, before taxes, $21,000 per day, so we drew the conclusion, of course, that we could not afford to do it.

Senator MITCHELL. Would you provide this committee with documentation in support of the statement you have just made?

Mr. BOAKES. In the packet that we passed out to the committee members, it has been provided to you. We have, in our attachments, the various places that we tried.

[The attachments referred to have been retained in committee files.]

Senator MITCHELL. What about you, Mr. Genereau?

Mr. GENEREAU. Senator Mitchell, our lagoons are an integral part of our waste water treatment system. To discontinue their use would be to discontinue treatment of our water for discharge.

We did investigate alternative means, that is, transporting all of the wastes offsite. We are looking at in excess of 300,000 gallons per day. Besides the fact that we documented it, it was logistically impossible, there are not enough tank trucks in the State of Connecticut and disposal facilities to have adequate capacity to receive the wastes.

There is also the issue that Mr. Hyner brought up earlier, and I think this is something that is widely recognized by EPA, to transport wastes as opposed to treating them onsite is a riskier proposition.

Senator MITCHELL. Is your waste of a different volume and composition, Mr. Hyner, than theirs, and that is why you can afford to ship it?

Mr. HYNER. I think that you misunderstand the question. My waste is a byproduct of water treatment, and as Mr. Genereau has said, if he shutdown his lagoons, he wouldn't be able to treat his water. He would have to ship all of that out.

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Senator MITCHELL. You are obviously in a tough spot, I suppose, Mr. Genereau, but rarely have I seen anybody be able to make as precise a cost/benefit analysis of violating the law as you.

Would you provide the committee with specific data on your efforts to obtain insurance, and the dates upon which you were notified that insurance was unavailable? I don't mean, just saying, we tried, and we couldn't.

Mr. BOAKES. Sir, do you have this packet?

Senator MITCHELL. No.

Mr. BOAKES. You shall have it.

Senator MITCHELL. It is the staff's job to read it.

Mr. BOAKES. It is in there.

Senator MITCHELL. We look at the statements, but that is a big packet.

Mr. BOAKES. We have a chronology in the packet that documents every one of our efforts to obtain insurance.

Senator MITCHELL. Do you have comparable information in your material, Mr. Genereau?

Mr. GENEREAU. Yes, sir.

Senator MITCHELL. Do you, Mr. Hyner?

Mr. HYNER. I don't have it in my material, but I will be happy to supply it.

Senator MITCHELL. Would you do that?

Mr. HYNER. Yes.

Mr. BOAKES. It would be attachment F in our packet, the chronology, and the backup documents to support the chronology.

Senator MITCHELL. I see that now.

If you would provide that, Mr. Hyner, we would appreciate it.

Has EPA initiated any enforcement action against either of your concerns, Mr. Boakes or Mr. Genereau?

Mr. BOAKES. The Kentucky EPA has notified us that we are in violation of the insurance requirements. I don't believe that I have heard from Florida yet. They are waiting to see what Congress is going to do, that is my understanding.

Senator MITCHELL. When you say, Kentucky EPA, do you mean the State of Kentucky?

Mr. BOAKES. The State of Kentucky, the Environmental Protection Cabinet.

Senator MITCHELL. Has the Federal EPA notified you of anything?

Mr. BOAKES. No, sir.

Senator MITCHELL. Mr. Genereau?

Mr. GENEREAU. To our knowledge, as of this date, they have not pursued an enforcement action.

If I may, Senator Mitchell, I would like to address one area. Our company has spent millions of dollars to clean the air and the water that is discharged from our company, and we think we have done an admirable job of that, and can document that fact.

What we think is criminal is the fact that there are companies that continue to dispose of the country's wastes in violation. What I am saying is, we have complied with all the physical requirements, but through the unavailability of insurance, that is the one requirement that we cannot comply with.

Senator MITCHELL. What would happen, if the House bill is accepted, if we do what you ask be done, and then we get to November 8, and you haven't been able to get insurance?

Mr. HYNER. The important part to me, the House and the Senate bills, as I mentioned, refer to section (e) modification of regulations, which orders the Administrator to come up with alternatives besides insurance, and provide those to the companies that meet all the other certification requirements. Without that, I am sunk. That is the important part to me. I need any other alternative, as long as I can get it. It is a little tough for me to buy something that doesn't exist.

Senator MITCHELL. But the point is that what you are banking on is that there will be something, that something will happen that will meet the obligation of the law as to insurance that exists now.

Mr. HYNER. Between that and the variance procedure, I am certainly hopeful of it.

Senator MITCHELL. If that doesn't happen, you will be back here next year, saying, we need another year's extension.

Mr. HYNER. I don't know what I would be doing. I am hopeful that that procedure would move along rather quickly. I would be happy if somebody said, buy $1 million or $2 million, because I think I can get those policies. But when they say, $3 million or $6 million, I can't buy it.

Senator MITCHELL. Say that again.

Mr. HYNER. I have been offered at least a quote by St. Paul for $1 million and $2 million. This is $1 million per occurrence, and $2 million aggregate. The law says, minimum $3 million and $6 million. Why buy $1 million and $2 million if I am going to have a violation for that. If that was the requirement, I think I might have a shot at meeting that.

Senator MITCHELL. In other words, the unavailability of insurance is not inherent. It merely is in the amount?

Mr. HYNER. I believe that it is in the amount. AIG, which is one company that has written, I have application in AIG, although their policy language is certainly in question, where we are ready to talk about $3 million and $6 million, I got a letter about a month and a half ago that said, no, they will only write $1 million and $1 million. Again, there are only two or three companies that even have considered writing it, but as I said not in the amount that RCRA requires.

Senator MITCHELL. Is that your understanding, Mr. Boakes and Mr. Genereau, when you talk about insurance not being available, it is available, but simply not in the amounts required?

Mr. BOAKES. No, sir, that is not my understanding. My understanding is that insurance is not available.

Senator MITCHELL. In any amount.

Mr. BOAKES. In any amount, that is my understanding.

Senator MITCHELL. You are going to ask him for the name of the company that gave him a quote?

Mr. BOAKES. I have the name of the company.

Senator MITCHELL. Mr. Genereau, what about your experience?

Mr. GENEREAU. Senator Mitchell, we will hopefully not have to be back on November 8 because we have signed a consent order for

closure with the State of Connecticut. So ours is a somewhat different situation.

However, I would just say that, and I have some notes here of responses that I received from insurance companies, just last week, and it was EPA's suggested list, that clearly demonstrate the unavailability of insurance that meets the RCRA guidelines.

Senator MITCHELL. That sentence could be interpreted to agree with Mr. Hyner as it involves the amount.

Mr. GENEREAU. There are some technicalities with regard to the policies, as well as the policy limits. The law is specific, and you either meet the requirements of the law, or you don't.

Senator MITCHELL. I understand that, Mr. Genereau, but you are asking for a certain type of corrective action, and the question is whether the corrective action is proportionate to what is wrong. If a guy comes to the doctor with a broken finger, the doctor doesn't say, that is pretty bad, we are going tc operate on your brain. He says, we are going to fix your broken finger.

What I am trying to get at, with these statements about unavailability of insurance, and so forth, is to try to determine what is the best, most effective and, from my standpoint, proportionate response to the problem.

Mr. GENEREAU. Realistically, and this is from my own personal opinion, there has to be some give and take, which right now is not available in the RCRA requirements with regard to the insurance issue. I happen to agree, if insurance is going to be a viable alternative, there has to be some looking at the requirements, the liability coverage limits, as well as talking with the insurance industry.

If everything stays just the way it is, I would tend to agree, you could well be back here next year.

Senator CHAFEE. We have to finish up, but I will call on Mr. Boakes.

Mr. BOAKES. I just wanted to respond to Senator Mitchell.

At the Sikes Corp., if this bill is passed and we get essentially a year's extention, we, of course, will try to obtain insurance, and we will try any other mechanism that is offered to us, but I am really not banking on that working. Our solution is technical. I can have the recycle system in place and operating at our Kentucky facility by November 1986, and after that I will not need the insurance. My response is a little bit different than the gentlemen here.

Senator MITCHELL. You are ahead with that anyway?

Mr. BOAKES. Yes, sir, absolutely.

Senator MITCHELL. So actually, whether the law passes, it makes no difference to you as far as that facility is concerned.

Mr. BOAKES. Yes, I would like the extension so that I am in compliance with the law.

Senator MITCHELL. So that you are no longer arguably in violation of the law.

Mr. BOAKES. Exactly. We have a technical solution.

Senator CHAFEE. Thank you very much, and thank you, Congresswoman Johnson, for coming. We appreciate it.

The next panel will be Dr. Suellen Pirages, and Mr. Richard Fortuna. Why don't you come forward please.

If Mr. Boakes, Mr. Genereau, and Mr. Hyner could possibly stay and hear this testimony, you might feel better or worse, I am not sure which. It is up to you whether you want to say.

Dr. PIRAGES.

STATEMENT OF DR. SUELLEN PIRAGES, NATIONAL SOLID WASTE MANAGEMENT ASSOCIATION

Dr. PIRAGES. Thank you, Senator Chafee, and Senator Mitchell.

My name is Suellen Pirages, and I am the director of the Institute of Chemical Waste Management, which is a component of the National Solid Wastes Management Association. The association is a trade association for the entire waste industry including solid as well as hazardous waste. Members of ICWM are those commercial firms that are actively engaged in all aspects of hazardous waste management—transportation, treatment, storage, incineration, and disposal.

I am pleased to have an opportunity to give our concerns to this committee on the issue of loss of interim status. There are two points that I would like to make. We are very concerned that the proposed bill, being considered by the Senate and already passed by the House, sends a very confusing message to the regulated community. We are also very concerned that it does not begin to address the core of the problem.

In 1984, Congress passed the Solid and Hazardous Waste Amendments Act, Public Law 98-616. It clearly stated an intent to redirect our waste management practices. You mandated that interim status must come to an end and that any facility intending to continue in operation must demonstrate financial responsibility.

We supported those amendments in 1984. We feel more strongly, if it is possible, today that financial responsibility is an absolute necessity in the regulatory program. We are very concerned, however, that these bills are sending the message to the regulated community and the public at large that the 1984 amendments were just political show. That if you can get a special interest group to give you a hard luck story, you will quickly change your mind. We don't think that this is the message that you wanted to give, and it is certainly not the message that we want to extend.

I would like to point out that although I can empathize with the situation the gentlemen in the previous panel have described for you, there is one aspect that they have failed to point out. Their competitors are meeting the requirements for managing hazardous waste in a proper way. They are experiencing increased costs, whether they do it on site, or whether they use the services of the commercial industry. The bill that was put forward in the House, and any that you might propose that is similar, gives these few companies, 47 in number, an economic advantage over their competitors.

Senator CHAFEE. How many competitors would you say there are?

Dr. PIRAGES. I understand that there are quite a few people in the same business as those gentlemen, electroplating.

Senator CHAFEE. I don't mean those necessarily, but how many companies that comply?

Dr. PIRAGES. Complying with the law in terms of hazardous waste management?

Senator CHAFEE. That is right.

Dr. PIRAGES. I would say the majority of companies.

Senator CHAFEE. I am looking for numbers. Somebody gave a number of 1,500.

Mr. FORTUNA. There are 521 certified in full compliance.

Dr. PIRAGES. In terms of doing their own waste management, but I am talking about companies that are complying with the environmental directives of having their waste managed properly, not necessarily on their own site, but by someone else.

Senator CHAFEE. Go ahead.

Senator MITCHELL. Could I interrupt for just a moment.

I know that Mr. Hyner and the others are in the room, and Congresswoman Johnson. If they could submit to us in writing an explanation of that fact, that over 500 companies have certified full compliance, why should we give a special treatment to someone who hasn't complied with the law. Give us a letter responding to that specific question.

Thank you.

Dr. PIRAGES. If I can go on. I empathize with their situation, but what I would like to point out to you is that the bills proposed——

Senator CHAFEE. You empathize, but you are not very sympathetic.

Dr. PIRAGES. The bills proposed do not really address the problem. Five hundred firms did comply for financial responsibility on November 8, but I would wager that over the next 2 years, even those 500 companies are going to find it difficult to find insurance. There is a major insurance problem in these United States. Extending the loss of interim status is not going to solve that problem. We have to do something so that we can have a means of providing environmental impairment liability insurance to the country.

Just a few weeks ago, the Senate Commerce Committee was reviewing the issue of product liability. Representatives from the insurance industry made the statement at that time that they expect a recovery in the insurance business, but regardless of that recovery, they will not write environmental impairment liability insurance.

Our industry is trying to do our part. We are trying to set up an industry-owned cooperative that will address, we hope, the insurance needs of our industry, but that is not enough. We are still plagued with the problem of uncertain liability. You have heard before in previous hearings that this is really at the core of the problem.

I urge you to act on that issue rather than look at the very narrow focus on loss of interim status.

Thank you.

Senator CHAFEE. Thank you very much, Dr. Pirages.

Now Mr. Fortuna.

STATEMENT OF RICHARD FORTUNA, EXECUTIVE DIRECTOR, HAZARDOUS WASTE TREATMENT COUNCIL

Mr. FORTUNA. Thank you, Mr. Chairman, and Senator Mitchell.

My name is Richard Fortuna, and I am executive director of the Hazardous Waste Treatment Council. We are a national trade association of firms committed to the primary use of treatment and the restricted use of land disposal. We represent a number of equipment manufacturers as well.

We believe that the financial requirements are an important private sector supplement to the public enforcement efforts and regulations of RCRA. I think that it is interesting to reflect on the article in the paper this morning which talked about the perception crisis, and the insurance crisis, and the overall shortage of impairment liability insurance.

In fact, one of the most telling components of that article was the fact that a lot of unselective underwriting was done for many years by insurance companies. In fact, the function that these financial requirements are supposed to be serving, which is namely ferreting out the high risk companies and not offering insurance to them, is really not being performed by the insurance companies, which is in large part a reason as to why we are where we are today.

The key question here, and what we need to focus on, is not our firms going out of business, but rather our land disposal units, and the largely unlined lagoons that are going to be put out of business.

It is important to note that the loss of interim status only affects those land disposal units, and does not close the facility or forestall it from seeking other alternatives, as we heard from the other panel.

It is also important to recall that this provision was not a wall flower, it was clearly contemplated that facilities would be put out of business, and particularly land disposal units and lagoons that could not meet these requirements would be put out of business.

I would like to offer a couple of contrasting examples from my own membership in terms of how they have responded to this provision, and what it means to them.

When the list of firms that were originally going to be subject to the loss of interim status, or the lowest provision, came out, I found two of my own members on the list. I called them up and I said, "Why didn't you call me? I thought I would have heard from you by now." They said: "We really don't care because those are units that we have been trying to get closure permits for for 3 years."

I think that example is representative of many other people. This loss of capacity that people are talking about was, by and large, dead capacity. It was not going to be used or permitted.

Another example, I think, is more telling in terms of some of the examples that we heard from the previous panel. One of my other members, an incinerator firm, was faced with the inability to get insurance for one of their scrubber water lagoons. In fact, they could have perhaps argued that this was not a lagoon, since it was a concrete basin with synthetic liners in it.

Nevertheless, faced with the problem of getting insurance, rather than coming here to complain, what they did was invest the money back in July and, indeed, put in an aboveground concrete pad treatment water tank for this scrubber water. I think that if anybody was in a position to come in and argue that they had a special

case to make, this would have been one, but they chose to comply instead.

I think that it is also important to note some other related developments in the insurance area. There is a new insurance company that has recently come on line in New Jersey that will not offer insurance to firms such as ours, commercial hazardous waste treatment firms, but is selectively going to offer insurance to manufacturers, to give them the $3 million and the $6 million that the gentleman mentioned, and the $1 million and the $2 million that they need for sudden releases.

Senator CHAFEE. OK, give us the name of that firm?

Mr. FORTUNA. It is in the testimony, Mr. Chairman. It is the HYPERCEPT Insurance Co.

Senator CHAFEE. How do you spell it?

Mr. FORTUNA. H-Y-P-E-R-C-E-P-T, and the information is in the testimony. HYPERCEPT is an acronym for doing a good job, or something of that sort. I am not quite sure.

Again, it is important to note their criteria, and what they are saying is that they are only writing policies for firms that practice rigorous risk control practices and techniques. It is not open to everyone.

Just as the response of my incinerator firm with the scrubber lagoon was what the provision intended, so, too, this is the type of desirable behavior we would hope to be seeing from insurers, to begin offering policies that reflect the differential risk of waste management activities.

I will also note that these cases I cite are not the only folks who had trouble meeting the lowest requirement. Several firms had to scramble, but they all did so and met these requirements either through a corporate guarantee, because of their size, they found additional coverage, or they similarly closed their lagoons that were the subject of requirements.

I think that to extend interim status back to these facilities not only is, as the chairman notes, really a band-aid but it also makes a mockery of the efforts of my folks and a lot of other people who have struggled to comply.

Let's take a look at what we really heard from the previous panel here. I didn't have an opportunity to review all of the testimony ahead of time, but the gentleman from Stanley, as I understand, essentially wants an insurance policy to cover a lagoon that is going to be closed under a consent decree. I ask you, is there anyone on the panel that would write a policy for that situation, or anyone in the room? I would tend to doubt it.

The gentleman from Sikes talked a lot about his overall efforts to comply with the pollution requirements, but I didn't hear him say what he was trying to do on site to go from lagoons to tank systems. These NPDES lagoons that these people have were not subject to RCRA overnight. In large part, they, themselves admit that they are going to have to close these lagoons anyway as a result of the impoundment retrofit provisions.

If, indeed, they want to modify their operations, which they already should have done or have been underway, that is what the part B application process is all about.

If after-the-fact representations by a relative handful of firms can really modify and reopen RCRA, then what kind of signal is this committee going to be sending relative to the land disposal ban, the other impoundment retrofit requirements, and many other deadlines that are going to be coming up under RCRA.

In large part, the legislation the committee is considering is, by and large, a referendum on our collective resolve to implement RCRA in a meaningful way, and to send a clear signal for people to modify their practices, because if we don't, we really are going to have people investing their resources and money in complaining, and not in complying.

In conclusion, Mr. Chairman, what we have outlined in a number of recommendations, the least of which is the legislative options you see before you. We would, obviously, encourage EPA to act on the opening up of the corporate guarantee to be a vehicle for satisfying the third party liability insurance requirement, not just a closure and post-closure insurance requirement.

We would also, obviously, encourage the committee to follow through on its previous action to establish amendments to the Risk Retention Act under Superfund that Senators Stafford and Bentsen sponsored to the Senate bill which have been incorporated in the House bill. This will be a vehicle by which companies such as ours, or companies such as the ones on the previous panel, can essentially pool their environmental impairment liability risks and essentially form their own type of risk retention pools or insurance groups to offer the type of coverage that they may not be able to be offered commercially.

Thank you, Mr. Chairman.

Senator CHAFEE. Thank you very much, Mr. Fortuna. I think the points you make are good ones. Thank you also for your recommendations.

Senator Mitchell.

Senator MITCHELL. Is it fair to characterize the testimony of both of you in this manner: The 1984 amendments impose tough standards, that your members have worked diligently to meet those standards as best they can, and it bothers you to see a few people come in here, who have not done so, and ask for, in effect, special treatment, so that those who have complied with the law feel that they were suckers to do it. If they had waited, and come in here and made a special plea, maybe they wouldn't have had to do it.

Dr. PIRAGES. I would go even one step further. Not only can it be characterized as you stated, but I think our industry has even gone forward and tried to resolve the problem on our own by setting up our own insurance program. That shows that not only do we support the regulations and the requirements, but we are willing to find a way to resolve the problems.

Senator MITCHELL. You answer is, yes, to my statement, it is a fair characterization, and you would go even further.

Mr. Fortuna, is it a fair characterization of your testimony?

Mr. FORTUNA. Absolutely. I would perhaps by analogy say, our folks don't want to wind up being in the position that Chrysler Corp. found itself in. They don't want to be in the position of having invested a lot of capital in fuel efficient cars, and fuel effi-

cient car lines, only to have the CAFE limits raised because their competitors, essentially, can't meet them.

This is not only a competitive argument, it really goes to the heart of RCRA. This is really the first meaningful deadline and it is in many ways much symbolic than substance because, as I said, most of the capacity that was taken offline was dead capacity anyway, or it was online lagoons with lead tailings in them.

This is really a test of our resolve as to how we are going to deal with these issues in the future. These companies probably are not the least sophisticated of those firms out there. They certainly appear to have a good level of sophistication about environmental requirements.

I think the gentleman raised a good point. What about a lot of the other firms, what kind of signal is this going to send to them?

Senator MITCHELL. Could I just ask you, Dr. Pirages, you said, I thought, that there was adequate commercial capacity to handle waste. I understood Mr. Genereau, a previous witness, to say that there was a capacity problem for liquid untreated waste.

Dr. PIRAGES. I am not sure what he is referring to. What we did, when we saw the loss of interim status list and those companies that were supporting the House bill, we alerted some of our members who are in the area, the New England area, and asked them: Do you know these companies, and can you manage their wastes?

The answer that we got back was yes, and we have approached them. I have not followed up since then to look into their business to see if they had gotten new clients from it, but the response they gave to me was, yes, we can handle those types of wastes.

Senator CHAFEE. If I recall Mr. Genereau's testimony, it was the volume, unless he removed the liquid from the waste, or separated out the liquid from the waste in his own place, which he didn't discuss, just the sheer volume that he had was so substantial.

Dr. PIRAGES. I am sure that there are probably ways, even if he wanted to do the separation of water from the sludge materials, store the material within the required time period above ground, and then transfer it to a commercial waste service facility. There are options that can address his specific situation.

Senator CHAFEE. Mr. Fortuna, in your testimony, you point out that in the most recent agency data, only 50 of the approximately 1,500 land disposal units subject to the November 8 deadline, will lose interim status solely because they have no liability insurance.

Mr. FORTUNA. I think that that number is high. It may be even less than that.

Senator CHAFEE. In other words, you are saying that the others all were able to get it, or fell out for other reasons?

Mr. FORTUNA. Closed their units, or fell out for other reasons.

Senator MITCHELL. Let me ask just one more question. Have your members experienced an increase in demand as a result of the 1985 deadline?

Dr. PIRAGES. Somewhat, but not overwhelming.

Mr. FORTUNA. To date, the largest stimulus of demand of our incinerator people have come from firms that have been burned by Superfund liability, and they have become PRP's.

Senator MITCHELL. They have become who?

Mr. FORTUNA. Potential responsible parties at Superfund sites. They are people who either caused or may have contributed to the Superfund sites. They are either firms that thought that perhaps their wastes were permanently managed, and it came back to haunt them, so they wanted them incinerated.

I think a more relevant example would be to deal with metal bearing wastes because the people on the previous panel are dealing with those kinds of wastes. Many of our members who treat inorganic wastes are going to a solid phase as opposed to liquid phase treatment.

The gentleman said, "I have 300,000 gallons a day, and I can't transport it all," and that is true. What more and more of our members are seeing are essentially dewatered metal hydroxide sludges coming for additional treatment prior to render them either nonhazardous or to render them potentially nonhazardous through additional treatment.

These people are not without options. One of my member firms in York, Pennsylvania, is in the midst of dealing with Caterpillar Tractor and a number of other people who have moved in response to this restriction and these requirements, who have dewatered their wastes onsite, so that they are able to ship the sludge or ship the waste in a more manageable form, and a lesser volume, for proper treatment. These people can do the same thing on-site, it is just that they haven't moved quickly enough to do so.

Senator MITCHELL. Thank you very much.

Senator CHAFEE. Thank you very much, both of you, for testifying here today.

We now move on to the other subject, and the next panel will be Ms. Linda Greer, Dr. Douglas McKay, and Dr. Ellen Silbergeld.

Why don't you come right forward please.

All right, Ms. Greer, why don't you begin.

STATEMENT OF LINDA GREER, STAFF SCIENTIST, ENVIRONMENTAL DEFENSE FUND

Ms. GREER. My name is Linda Greer, and I am a scientist with the Environmental Defense Fund. There are two other people with me from the Environmental Defense Fund. One is the person to my left, David Lennett, an attorney with EDF. The other is at the end, Dr. Silbergeld. We are pleased to have this opportunity to testify before you today, and we will concentrate our oral statement on the land disposal ban.

As both of you have pointed out in your opening. statements, EPA has undertaken a land disposal ban in response to your 1984 amendments.

Senator CHAFEE. Ms. Greer, could you tip the mike a little bit toward you, and don't go too fast now.

Ms. GREER. In the first paragraph, I am telling you what you already know.

Senator CHAFEE. Fine, we know one paragraph's worth, and that is a tribute to us.

Senator MITCHELL. Actually, you are better off emphasizing where we agree with you.

Ms. GREER. That is true.

The centerpiece of these amendments, section 201, directs EPA to review all the hazardous wastes regulated in the RCRA system and to prohibit the land disposal of untreated wastes unless a petitioner can show that there will be no migration from the disposal unit for as long as the wastes remain hazardous. Those wastes that will migrate must be treated so that their toxicity and/or mobility is substantially minimized prior to their disposal on land.

The statutory ban directive that wastes are prohibited from land disposal in untreated form unless a petitioner can demonstrate to a reasonable degree of certainty that there will be no migration from the unit is quite clear. Unfortunately, despite this clarity, EPA has developed a land disposal ban that bears little resemblance to congressional intent.

It has interpreted the statute to allow migration of hazardous constituents beyond the immediate confines of the disposal unit. Incredibly, this single misinterpretation that the two words, "no migration," allowed some migration led to a 164-page Federal Register proposal of extraordinary complexity.

The misinterpretation has required thousands of work-hours and hundreds of thousands of dollars, and has taken us precisely to that point that Congress was trying to prevent when it designed the statutory provision, to an unrealistic, unscientific, and unprotective land disposal ban.

The land disposal ban is based on the same old wishful thinking and optimistic performance assumptions concerning landfills and ground water cleanup that have been with EPA for years, and have kept the RCRA program from being a success since its inception.

A good first example of the kind of thinking that went into the ban is found in EPA's assumption about the design and performance of land disposal facilities. In this proposal, all operating land disposal facilities are assumed to be Cadillac facilities, with two state-of-the-art liners and a leachate collection system. Moreover, the liners don't leak a single drop for the entire operating life of the landfill. If they do, the contamination is immediately detected and flawlessly cleaned up, leaving no signs of trouble.

As a result, EPA concludes that the ban need not be protective for operating facilities, and from that point on it deals with the potential hazards from only closed facilities. Thus, the EPA ban is based only on closed facilities, and its prohibitions based on only what could be predicted to leak out of closed facilities.

Furthermore, the closed facilities in the EPA proposal are installed with caps which perform nearly flawlessly in perpetuity. Thus, the theoretical facilities upon which the model is based pose little if any hazard to human health and the environment.

It is completely baffling to us how EPA can base its land disposal ban on the assumption that all its facilities are double-lined, that liners don't leak, and that ground water cleanup is no problem.

Further, it is not appropriate to assume that lined facilities will not leak. There is no data to support such a conclusion. It is contrary to existing empirical evidence, and it is contrary to the congressional directive highlighting the uncertainties with land disposal.

Even a cursory reality check of numerous other EPA assumptions used in the banning decisionmaking model reveals that they are fatally flawed and lead to an extremely nonconservative analysis that will not be protective of human health and the environment.

For example, according to EPA, hazardous waste facilities in 5 of 18 representative climates of the United States no leachate per year, 0.0 inches. That is, according to EPA predictions, the design and location of hazardous waste facilities in 29 percent of the United States should not be contaminating the ground water at all.

EDF has research the status of actual facilities in these five representative climates referenced by EPA, however, and we have found that fully 53 percent of the facilities located there have contaminated the ground water. The names of those facilities are contained in attachment 1.

Contrary to EPA's theoretical assumptions, these facilities have leaked and the contamination has not been adequately addressed during their operating lives. How can EPA justify its assumption that facilities in these areas will never contaminate the groundwater when a brief EDF investigation of files shows that many of these facilities have already done so.

Similarly, the EPA proposal assumes that no drinking water wells will ever be placed closer than 500 feet from the facility.

Senator CHAFEE. Ms. Greer, you have a long statement, some 20 pages. I will give you a couple of minutes to summarize, but not read all remaining 14 pages.

Ms. GREER. Fine. If you had let me go as fast as I started, I might have been able to do it.

Senator CHAFEE. I gave you something because you conceded the first paragraph to us.

Ms. GREER. The second major point that I wanted to make is that EPA assumes a distance of 500 feet from the disposal unit to the nearest likely drinking water well. That assumption is not protective of 50 percent of their facilities according to their own data, that is, 50 percent of their facilities already have property boundaries closer than 500 feet to the units. Property boundaries are the indication of where in the future wells could possibly be sited.

Let's look at another assumption in the EPA model that leads to dire consequences on the protectiveness of its approach, the vegetation that will grow on the covers of closed landfills. The EPA model assumes that a grass not previously found to exist in the entire United States will be flourishing on top of the caps of these landfills. It is a ridiculous assumption of vegetation, with exactly three feet of roots, that is no less and no more three feet, and it is this grass which is rumored to cause all of the precipitation falling on landfills, or nearly all of it, to go back up in the atmosphere as evaporation.

We have checked with our agricultural experts and we have learned that there are no grasses with three-foot roots, and that, in fact, EPA's historic conservative assumption of grass roots, even for excellent grass, is 18 inches.

As the above examples show, EPA is moving forward with a banning methodology that is based on extremely weak technical assumptions. In some cases, the assumptions border on the ludicrous.

More importantly, as our examples show, the assumptions are not overly protective or conservative as the agency will contend in their statement after us.

Prudent public policy dictates that all of EPA's assumptions be conservative as possible. However, simply adjusting the assumptions discussed here today will not result in a rational or effective land disposal ban.

We caution the subcommittee against suggesting to EPA that the problem with its proposed ban lies in the fine points. Rather EPA's whole approach must be abandoned for one that is consistent with congressional intent.

Thank you.

Senator CHAFEE. Thank you, and we will put you down as opposed.

Dr. Mackay.

STATEMENT OF DR. DOUGLAS MACKAY, CIVIL ENGINEERING DEPARTMENT, STANFORD UNIVERSITY

Dr. MACKAY. My name is Doug Mackay, and I am an assistant professor in the environmental science and engineering program of the School of Public Health at UCLA, and I am also a consulting assistant professor in the Department of Civil Engineering at Stanford University.

I have been working for the last 4½ years with the Department of Civil Engineering at Stanford and the University of Waterloo on some ground water research. In that capacity, I had the chance to work with Prof. John Cherry from the University of Waterloo, who has agreed to collaborate with me on these comments here today, but could not make it here.

As you may know, John Cherry is a very well-known hydrogeologist who has worked around the world. He is the author of numerous publications and books on ground water.

We, certainly, appreciate the opportunity to make these comments on the appropriateness of the ground water modeling approach which EPA has proposed as part of the methodology for determining which hazardous wastes should be banned from land disposal.

In essence, we believe that the processes that control the transport and fate of contaminants in the subsurface are currently not well enough understood to justify a modeling approach such as the generic model that EPA has proposed to establish regulatory criteria, especially criteria to be applied nationwide.

I will discuss in a moment some detailed reasons for that. I would like, however, to switch to the slides in order to do that.

The essential problem, we feel, with the model is that it is not really based on a physical conceptualization of the subsurface through which the contaminants will move that has any basis in reality in the United States.

The slide here, which is admittedly somewhat difficult to see, simply shows two basic domains, the stippled area—that is fairly white—of sand and gravel deposits, the darkened areas are other things which tend to have fractures as the main zones through which water moves.

The EPA model is based essentially on a sand and gravel aquifer, so it would apply most logically to those white zones and clearly not quite so logically to the other parts of the country.

This next slide is the kind of porous medium which the EPA model does apply to. It is essentially sandy, gravelly kinds of materials which, if they, in fact, were continuous over fairly large domains, might well be modeled by the EPA approach.

However, in these sorts of domains, there are frequently deposits like this, these inclusions of gravel, everybody is familiar with this sort of thing from a road cut, which can dominate the flow through porous media like sands and gravel.

Why is this important? This is a schematic taken out of John Cherry's book, which shows you that if you have these kinds of lenses, you get that sort of fingering flow, as it is called, and you can have the motion much more rapid than you would expect based on a uniform porous medium, which is the EPA generic assumption.

To a certain extent, they can account for that by velocity variations which they attempt to do, but it is not clear that they can account for all of the variability.

As we mentioned before, much of the country is composed of fractured material. Here is a road cut in which a kind of carbonate containing shale is shown. You can see that the water is definitely not flowing through there in a uniform way. It flows through preferential fractures, and that is why the ice is where it is.

This is a terrible shot, I realize, but you will understand that it is terrible because it was taken down a bore hole with a periscope into a bed of granite, which ordinarily would be considered to be relatively impermeable. There are fractures in that material through which water could move quite rapidly.

This shows another cut, actually in the vicinity of a landfill, into a carbonate aquifer, such as you might find in parts of the United States. Again, although it is not so clear because everything is white, the water is flowing through preferential channels.

The importance of this is that when the water is not flowing uniformly through a deposit, it tends to flow much more rapidly, of course, through the few fractures available to it. So, the velocities can be quite higher in these kinds of domains, say, at least 10 to 100 times than would be expected in sand and gravel aquifers.

For example, there is a case in Missouri, on a limestone aquifer, in which a dye was dropped into a landfill, and was observed 1,500 meters away only 6 days later. In any case, what is important is that the velocity that was determined was 91,000 meters per year, and this is a very rapid flow. It is similar, in a sense, to a surface stream, and it is at least a factor of 10 higher than the maximum value set in the EPA generic model.

I have scrambled the numbers a bit there, but they are correct in my writeup.

The reason that this is important is shown in this schematic of fractures in which you have this sort of strange flow, which is by no means a uniform plume, and what you can imagine, and I think turns out to be true, the dispersion or the sort of spreading out of the plume as it moves down these fractures is not as would be expected for a sand and gravel aquifer. Therefore, many of the as-

sumptions in the model which rely on dispersion are inappropriate for these kinds of domains.

Let me skip over this. [Several slides skipped.] It is mentioned in the testimony, and I would rather get to a more important point.

We do have quite a bit of information recently on dispersion. This is one of the two mechanisms in the model which reduces the concentration of contaminants. What I just showed you was a field site in which a controlled field experiment was conducted by myself, John Cherry, and several colleagues at Waterloo and Stanford. You can see the plume that we injected developing over the course of almost 2 years, and there is very little spreading in the transverse direction, across the direction of flow. There is some in the longitudinal direction as would be expected.

You can see in the next slide that there is extremely low spreading in the vertical direction, and the reason that this is important is that it dominates the concentrations that would have been observed down gradient of a landfill. The transverse dispersivities are the most important. In this particular case, if we were to apply EPA's criteria, we would find that their definition of dispersivity would overestimate what we saw by a factor of 13 in the longitudinal direction, and about 60 transverse, and essentially infinite, in the vertical domain.

So, there appear to be some problems with the assumptions of dispersivity.

Let me spend just one moment on this slide. This shows, for the same experiment, two organics which were also injected. You can see that the plumes have similar shapes. The important thing to note here is that that combined plume of carbon tetrachloride and PCE, which is on the order of 30 meters long, 10 meters wide, and a couple of meters deep, was caused by an amount of organic solvent which is shown in this slide.

We believe that small volumes, even, of contaminants leaking in aquifers in these sorts of porous media can cause large plumes.

I think that this would be a reasonable place to stop, and my testimony contains much other detail, which leads me to the following conclusion, and John Cherry is in agreement.

The proposed model, while a very interesting effort in terms of Monte Carlo modeling, and whatnot, does not seem to be an appropriate approach for setting criteria to be applied nationwide for land disposal of hazardous wastes.

Thank you.

Senator CHAFEE. Thank you very much, Dr. Mackay.

Dr. Silbergeld.

STATEMENT OF ELLEN SILBERGELD, CHIEF TOXICOLOGIST, ENVIRONMENTAL DEFENSE FUND

Dr. SILBERGELD. Thank you very much.

I am a senior scientist in the Toxics Program at EDF. My training and research experience are in toxicology and environmental health.

What I would like to talk to you today about, very briefly, are the health bases for these proposed regulations.

In addition to the complete unacceptability of the philosophy behind these regulations, which have supplanted a concept of prevention clearly articulated by Congress with a permissive, unscientific, and ultimately flawed interpretation, based upon an obsession with comparative risk assessments and a need to avoid excessive treatment, there are fundamental lapses in the science and science policy in these proposals which have implications far beyond RCRA. These are, very briefly:

First, the failure to deal comprehensively with multimedia exposure to hazardous waste;

Second, attempts to devalue and underestimate health risks by flagrantly unacceptable and novel methodologies; and

Third, a failure to include appropriately the risks of chronic disease and death due to causes other than cancer.

In addition, the document is illogical, and rife with technical mistakes as is demonstrated in my testimony. Whether these indicate intentional practices, or inadvertent lapses in scientific thinking can only be judged by your investigation into the processes by which this strange document was developed.

I would like to deal with the first topic, the failure to deal comprehensively with multimedia exposure.

In this document, EPA coins a new phrase, the so-called reference dose, which is merely a new name for an old terminology of acceptable dose. In developing this reference dose concept, EPA claims that it is including the total potential exposure to the hazardous constituents of concern. To do this, however, three dimensions have to be considered.

One, the consideration of all media into which hazardous waste may migrate from land disposal sites, including air, soil, surface, and ground water;

Two, accurate understanding of movement between media, called intermedia partitioning in the document; and,

Three, other sources of exposure to the same toxic substances, such as food and drinking water.

The methods proposed for calculating these reference doses, which are critical to the whole thinking of this document, do not consider all media of potential exposure. Although there is mention intermittently that air emissions will be integrated into an exposure assessment, this is not dealt with in any quantitative way in the document.

In fact, the reference doses are actually based upon recommended maximum contaminant levels and maximum contaminant levels, that is, RMCL's and MCL's, which have been developed for drinking water.

I should mention also that the EPA, by adopting the maximum contaminant levels, rather than the recommended one, is inappropriately incorporating cost factors into a decisionmaking process since this is the main difference between these two criteria under the drinking water programs.

I would also note that it is a good thing that in most cases liners are considered more sensitive than people in EPA's toxicology because in most cases, then, the liner standard overrides their idea of what is dangerous to human health.

There is no acknowledgment in these proposals of exposure via contaminated soil, although this is the reason the EPA spent millions to buy out Times Beach. Contaminated soil has required extensive and expensive cleanups at the Swiss vale site in Pittsburgh, near smelters in East Helena, MT, and Kellogg, ID, and the asbestos tailings piles in Globe, AZ.

It is astounding to come back here once again, 3 years later, to the U.S. Congress in order to remind the EPA that people are indeed endangered by contaminated soil because people, particularly children, eat soil, inhale soil, and contact soil with their skin in the course of normal activities.

Second, the approach to calculating partitioning of hazardous constituents between the media in this document is actually illogical in its application. It is important to account for the movement of hazardous chemicals into air and water, and uptake from fish from water and soil, in order to evaluate the potential human exposure. That is good environmental science, and it is good policy, even in this instance where it is based on fairly simplistic assumptions, using physical chemical constants.

It still represents a new recognition by this agency of the multimedia routes of exposure. However, as noted, movement into air is only considered as movement into air from contaminated water, not direct movement from land disposal sites into air as has been documented to have occurred and to have caused health effects at the Silresim site in Massachusetts.

Use of the octanol: water coefficient for estimating movement of hazardous constituents into water ignores both the matrix effects of codisposal with solvents or oils for dioxins, for instance, or the movement of waste en masse or chemicals absorbed under particulates, and to colloidal suspensions in water.

It is the use made of the partitioning data which is completely illogical. EPA states that its partitioning scenarios will be used to apportion exposure and, hence, the screening levels for water—as I have noted, it is really only water that we are talkinq about in this document. But then the reasoning falls apart.

The EPA assumes that if 50 percent of your exposure comes from water—because of the partitioning phenomena, that is how the chemical behaves—then, "the indirect effect is to permit an approximate doubling of the reference dose." In fact, under those circumstances, the reference dose should be cut in half, and not doubled, because the other 50 percent of the exposure will not be controlled by any actions to restrict land disposal.

In my testimony, I have walked through a specific set of numbers derived from information we have on lead exposure, to show you now the EPA logic would actually wind up with one hundredfold exceedance of anybody's notion of the acceptable daily exposure or reference dose to lead using their concepts of how you apply partitioning concepts.

Senator CHAFEE. You will have to wind up now, Dr. Silbergeld.

Dr. SILBERGELD. Fine, let me just mention this. It fails to consider effects on health other than cancer despite the fact that of the ten leading causes of death in the United States as of 1983, heart disease was first, stroke and pulmonary disease, infectious disease, diabetes, and liver disease are very prominent.

There is a very important result of this. Downgrading these kinds of health outcomes will, in fact, minimize concerns for the very substances which you have instructed the agency to consider in its land disposal ban on an expedited basis. The solvents, for instance, are primarily neurotoxic, rather than carcinogenic. When EPA comes to consider metals on the California list, such as lead and mercury, this bias against noncarcinogenic disease and death will severely distort regulation, such that dumping of metals is likely to continue.

Third, I would like to discuss the devaluing of risk, Senator.

Senator CHAFEE. I will give you 15 seconds.

Dr. SILBERGELD. Thank you, Senator.

This is the most disturbing innovation in this whole document. What the EPA essentially proposes doing is taking the results of quantitative cancer risk assessment, and then applying methods to discount results of those risk assessments. One of those methods is to use concepts of weight of evidence in order to do a quantitative discounting of risk.

The Science Advisory Board, on which I sit, considered the risk assessment guidelines for cancer, noted the appropriateness of evaluating weight of evidence, but specifically recommended against any discounting or devaluating of risk.

Senator CHAFEE. I just have to cut you off.

Dr. SILBERGELD. I would like to mention the issue of population discounting, Senator, which may be of concern to your colleagues from rural areas.

Senator CHAFEE. Since Senator Mitchell is from a rural area, I will give you 15 more seconds.

Senator MITCHELL. Why don't we do this. We have a lot of witnesses.

Dr. SILBERGELD. I understand.

Senator MITCHELL. I will ask you that question. So end your statement.

Dr. SILBERGELD. Thank you.

Senator CHAFEE. I don't have any questions for this panel because I found I agree with them.

Senator Mitchell, go ahead.

Senator MITCHELL. Tell us about rural areas, Dr. Silbergeld.

Dr. SILBERGELD. Thank you very much.

The EPA is proposing to incorporate total population numbers in determining acceptable risk. This goes against the methodologies for quantitative risk assessment, but I won't get into it.

It is analogous to a smoker. If you tell a smoker, look, if you continue to smoke two packs of cigarettes a day, you are going to raise your risk of lung cancer to one in three, and the smoker responds: There is only one of me, so there is no risk, why should I worry?

The EPA calls its proposal a method to augment risk information, but actually it is going to diminish into insignificance any and all risk assessments based on quantitative risk assessments.

They try to suggest to you that they know how to anticipate and predict populations around dump sites. Keep in mind that we do not have a very good record of doing that. Love Canal, after all, was not inhabited when it was a dump site, and it certainly was not projected to be a school playground.

The cities chosen by the EPA to demonstrate their ability to show changes in population ignore totally the great shifts in population occurring in this country, Sunbelt cities or representatives of any other rapidly growing demographic area.

The agency appears to realize what kind of a bombshell they have created in this proposal. Although they devote an extensive consideration of population dependent risk assessment, they really back off finally an explicit formula whereby they would discount risk down to very high risk, indeed, based on population——

Senator MITCHELL. Let me interrupt you. Is it based on an assumption or does it imply an assumption that rural residents will receive less health protection than urban residents?

Less persons who happen to live in less densely populated areas would be treated in one manner, and those who live in more densely populated areas in another manner?

Dr. SILBERGELD. Yes, it does. A variation of risk by three orders of magnitude, from as low as 10–7 for unspecified large populations, to as high as 10–4, three orders of magnitude for small groups of unfortunate rural populations could occur under this system.

Senator MITCHELL. Thank you very much, Dr. Silbergeld.

Thank you all.

Senator CHAFEE. Thank you all very much for your testimony, we appreciate it.

Now we would like to hear from Dr. Porter, Assistant Administrator for Solid Waste and Emergency Response.

Doctor, why don't you come up. I see you have some members of your staff. You have Mr. Lucero, Ms. Williams, and Mr. Blake.

STATEMENT OF J. WINSTON PORTER, ASSISTANT ADMINISTRATOR, SOLID WASTE AND EMERGENCY RESPONSE, ENVIRONMENTAL PROTECTION AGENCY, ACCOMPANIED BY FRANK BLAKE, GENERAL COUNSEL; GENE LUCERO, DIRECTOR, OFFICE OF ENFORCEMENT; AND MARCIA WILLIAMS, DIRECTOR, OFFICE OF SOLID WASTE

Dr. PORTER. I am beginning to get a sense that I am not going to be too popular today.

Senator CHAFEE. Why don't you go ahead.

Dr. PORTER. May I ask how much time I have for my statement?

Senator CHAFEE. You have 5 minutes.

Dr. PORTER. Let me just say that I want to plunge right in.

We have given you a written statement, and I will not go over that. What I would like to do is to quickly address the two topics that you asked me to address. One being the insurance question, which you heard about from the first panel, and the second. Then I would like to dive into the land ban, which you have just heard about.

Senator CHAFEE. Yes, I think that would be fine.

Dr. PORTER. With respect to the insurance, we have reviewed H.R. 3917, and we have provided technical assistance in the drafting of that document. As you know, that statute would grant a time extension for people who did not make the November 8 deadline with respect to insurance if they were in compliance, or on a

compliance schedule with all requirements, if they are not contaminating ground water, or if they are under a compliance schedule, or a corrective action schedule; and if they made a good faith attempt to obtain liability insurance.

What EPA would have to do is to notify all of the facilities that did not certify on November 8, under the provisions of H.R. 3917, and review any applications, and modify our regulations for additional financial options by March 1, 1986.

Let me briefly tell you what our position is on that statute.

First, I think that it is fair to say, we believe restoring interium status is increasingly difficult. We are not against it, and we will certainly talk about it. We do think that the bill as drafted would aid relatively few people, and would be a substantial burden on EPA to corroborate certification.

Finally, we are concerned with respect to the manner in which the various people operate or did not operate after that point. As you know, some people followed the law at great expense to themselves, sought alternatives, and others kept on operating. We are pursuing enforcement action in some of those cases.

What we propose is legislative action, if you are interested in pursuing it, and we will certainly provide assistance. We do have a degree of sympathy in certain meritorious cases where people, in fact, sought alternatives, worked very hard to get insurance, submitted a RCRA part B, and have a reasonable ground water monitoring system in. We certainly would be willing to work with you on that.

What we would want to do, is be sure that people in fact had an adequate ground water monitoring system on-site, on November 8. We want to be sure that they had submitted a RCRA part B, or at least could certify that the application was complete on that date, and would provide evidence of good faith attempts to get insurance.

Finally, for purposes of equity, we would want to pursue enforcement against those who operated in violation after that date.

That is a quick thumbnail sketch of that subject. Let me plunge into the next subject because I know our time is short.

On the land ban, last month, we introduced a screening model and a framework to come up with a method of how would we prohibit various items from going to the land without treatment, or without being fully protective of human health and the environment.

We also proposed the answer, if you will, on solvents and dioxin as a result of that model. What we want to do today is discuss the statutory basis, the methodology, and also, as I said, the answer on solvents and dioxins.

First, with respect to the statutory basis, let me just say that we believe that our use of the screening model, in the context of the petition process, and the pretreatment provision is allowed by the statute.

Under the petition process, land disposal may be allowed where it can be shown that there will be no migration of hazardous constituents for as long as the waste remains hazardous. This language does not actually prohibit migration, instead it asks EPA to determine whether the waste remains hazardous at a particular location.

In our view, a waste that passes this particular screening model criteria is not hazardous when disposed of at a particular facility.

Likewise, a stated objective of the pretreatment provision of the statute is to define levels or methods of treatment that minimize both short term and long term risks to human health and the environment, in our view, when it can be shown that a waste, before or after treatment, does not present a threat because it passes the screening model criteria. Then the objective of the pretreatment provision has been served, and the waste should be allowed to be disposed of in the land.

Very briefly, with respect to the methodology, I won't go into this, but it is fairly complicated. We take a concentration level, which we think is fully protective of human health and the environment at a point—500 feet has been mentioned, but I should state that we are not locked into 500 feet. We put that number out for comment. We think that it is a reasonable figure based on our experience around the country, but we have asked for comment on that number.

We take concentration levels, which we think are very, very low numbers, protective of human health and the environment, and we then back-calculate to what would have to be in the leachate level of the waste at the landfill. Then we look at that level in comparison with what you could obtain by treatment, and other factors, and we determine which one will be controlling.

About 95 percent of all wastes would need to be treated under our provision. We are not against treatment. We think that treatment has a lot of merit, and will be needed to be used in most cases.

As a matter of fact, most of the dioxin would need to be incinerated, and most solvents would need to be incinerated and reused as fuel, or used for waste water treatment.

I want to stress, we have proposed several major alternatives, one of which would be to use treatment at every single location, unless otherwise changed by a petition process. Another option would be to use our model only in the petition process, and there are gradations of those two alternatives.

I will close by saying that I am very concerned, frankly, about the overview of the whole hazardous waste system in this country, and all the regulation that we are developing. We have to look at the big picture. We believe that this model and this approach would allow good use of the limited treatment capacity.

We also think, and I think this is very, very important, that it provides incentives for production of low toxicity waste. If you tell everybody, either you treat or you don't treat, it doesn't take a lot of thought. We want to have people in those plants thinking about source control, we want them to be thinking about other things, where we can produce low toxic waste, where they have some finite chance of being able to meet some kind of a standard without necessarily treating.

We are not interested in treatment for treatment's sake.

Just two additional points, if I can.

We believe that this risk based framework solves the biggest problem. We also believe that this doesn't force hazardous waste in the less productive modes.

I was interested in Dr. Mackay's comments as a civil engineer. I am a chemical engineer, and I tend to think of treatment as being a good way to go in many cases, but treatment produces sludge. Treatment produces precipitate. Treatment may create an air pollution problem. So it is not necessarily the answer to all of our problems in every case.

With that quick overview of the two subjects, we will be happy to take your questions.

Senator CHAFEE. Thank you very much.

Senator Mitchell, I understand that you have an appointment so why don't you go ahead.

Senator MITCHELL. Thank you very much, Mr. Chairman.

I apologize to you and the witnesses for having to leave. I do want to ask a couple of questions.

Dr. Porter, I am looking at the law, and it says, "The Administrator shall notify the Committee on Environment and Public Works of the Senate, and the Committee on Interstate and Foreign Commerce of the House of Representatives in a reasonable time before publishing any suggested guidelines or proposed regulations under this act," and it goes on from there.

I understand from committee staff that the staff requested copies of such regulations, were refused, and finally they were received one day before. Is it your contention that you have complied with the law?

Dr. PORTER. We asked for a meeting with the staff well before that, and we were told that it was inconvenient.

While I would say that I am still a relative newcomer around here, I am very chagrined at the great surprise in this whole thing. I just pledge to you that we will try to do a much better job in the future of being sure that your people know what is coming.

I don't know that there was really this surprise that people say there was, but there appears to be a great surprise in terms of what we were doing in the last year or two, and I am very chagrined by that. I think that we do have to work much harder, all of us, to be sure everybody is on board.

I will say this, you have to bear in mind, Senator, also, if you will, that this is a proposal. We are getting lots and lots of input on this proposal. We have not made a final decision on how to go.

Senator MITCHELL. There is obviously some factual dispute here, and we will try to get to the bottom of that. I would hope that there could be a cooperative attitude.

For better or for worse, under our system, when the law says, "shall," it means, "shall." I used to be a Federal prosecutor, and the judge and I had to enforce the law as it existed, and not as I might wish it were. That applies to everyone in the executive branch as well as you know.

Dr. PORTER. Senator, I might just say, as a result of that, and some other things I have seen since I have been around here, what I have offered to do with the staff of the appropriate Senate and House committees is to meet on a routine basis every month or two, to talk about things like that, so that we can avoid this.

Senator MITCHELL. Let me ask you one more question, and then I have several others that I am going to submit in writing, but as

Senator Chafee indicated, I do have to leave to go to another meeting.

Under the 1984 RCRA amendments, application of a treatment technology, or a demonstration that there will be no migration of the hazardous waste are the only two ways to fall out of the land disposal ban contained in section 3004.

EPA has proposed a new concept, health-based screening levels, and suggests that meeting these health based standards is a third way to avoid the land disposal ban. Would you please tell me what authority exists in law for the application of this concept, which the Congress, I emphasize to you, has required in other situations, but clearly and explicitly rejected in this case.

Dr. PORTER. We may want to have my general counsel address that also.

My understanding is that we are talking about wastes as long as they remain hazardous. With the levels that we are talking about, the wastes do not remain hazardous.

I think that this is the guts of the matter. We are saying these wastes are not hazardous at the levels of which we are talking.

Senator MITCHELL. So, you are saying that the legal requirement is inapplicable to the circumstances which you describe; is that your argument?

Mr. BLAKE. The circumstances would meet those requirements.

Senator MITCHELL. There is substantial disagreement on that. I will just ask that you provide this committee, in writing, with an estimate of the costs and the work years involved in the preparation of this proposal, and the estimated cost of responding to comments received during the comment period.

Dr. PORTER. We will certainly do that.

[The information requested follows:]

Issue: EPA Expenditures for Development of the Land Ban Proposal

I. Expenditures for the Proposal

As detailed on the attached table, we estimate EPA used 25.3 FTE and spent $3.6M for contract support in developing the January 14, 1986 land ban proposal, including the application of the decision framework to solvents and dioxins. These resource estimates are for the Office of Solid Waste and Office of Research Development, the two major offices involved in the proposal.

Some proportion of resources that are used for data development, and waste characterizations that support the overall regulatory activities for RCRA, including ORD efforts, should be included in the land ban proposal. It is not possible, at this time, to estimate how much of these "general activities" should be costed to the proposal.

A land ban proposal that used a straight technology approach would have required much of the same lines and levels of effort.

II. Expenditures for Responding to Comments on the Proposal

It is unknown what the precise amount of effort will be spent on comments on the land ban proposal. Public comment closes March 17, 1986. We estimate that two FTE's and $50,000 will be used to review and respond to expected comments.

Expenditures for the Proposal

Activities	FTEs (OSW & ORD)	Contracts $ (millions)
Direct Support for Land Ban Proposal		
Model Development (framework) and application to solvents/dioxins	14.0	1.5
Reg. Impact Analysis, Compar. Risk Assessment	3.0	1.0
Petition (including petition guidance)	4.3	0.3
BDAT and Capacity Determinations (setting effective dates and case-by-case extensions)	4.0	0.8
TOTAL	25.3	3.6
General Support for RCRA Regulatory Program (including the Land Ban Proposal)		
Waste Information (data development including chemical/physical and toxicity)	12.9	2.4
Waste Characterization (including BDAT Support)	15.0	2.7
TOTAL	27.9	5.1

Senator MITCHELL. As I said, I have a large number of other questions, which I will submit to you in writing, and I look forward to your responses.

Dr. PORTER. Thank you very much.

Senator MITCHELL. Thank you.

Mr. Chairman, I am grateful for your courtesy in letting me go first because of my other commitments.

Senator CHAFEE. Thank you, Senator Mitchell. I am glad that you were able to be here with us.

I just want to see if I understand what your proposal is, Dr. Porter. It is pretty complex, and it is 164 pages. Let me see if I understand it.

Your preferred alternative would establish these health-based screening levels that would be used to cap the treatment requirements. They would be used to avoid the requirement for treatment altogether.

These health-based screening levels would be then used in a scientific model which assumes a hypothetical point of exposure to each of the three medium, groundwater, surface water, and air. Then somehow you back calculate to a hypothetical facility to determine the safe level of contamination. Is that correct?

Dr. PORTER. That is correct.

Senator CHAFEE. If this maximum acceptable leachate concentration level, which is the term that you used, is predicted by the model, then EPA will not promulgate a ban on the land disposal of the specific waste. Am I right so far?

Dr. PORTER. That is correct.

Senator CHAFEE. The waste can be disposed of in any land disposal facility without prior treatment.

Dr. PORTER. That is correct.

Senator CHAFEE. EPA is proposing to conduct these analyses on its own, and not to wait for exemption petitions.

Dr. PORTER. That is correct.

Senator CHAFEE. That is where I get into trouble because it is my understanding of what we did in 1984 to clearly say that the petition is required from somebody else, and you don't originate. The petition has to prove that migration from the disposal unit will result in acceptable levels.

Then upon such a showing, the petitioner will be exempt from the ban, or from treatment requirements.

Dr. PORTER. That is right.

Senator CHAFEE. The acceptable level is your proposal. We said, no migration. How is it that you are coming at it in a different way?

Dr. PORTER. I think there are a couple of different reasons. First, if I could make a comment.

We don't read the law as saying, you have to have a petition. In fact, the law has a parenthetical expression that says: "You do not have to petition, other than for a hazardous waste which has complied with the pre-treatment regulations promulgated under section (m)."

Senator CHAFEE. Don't go too fast because this is heavy stuff here.

Dr. PORTER. Section 3004(d), if you start with "For purposes of this paragraph, a method of land disposal," that is the paragraph I am referring to.

Senator CHAFEE. All right, go ahead.

Dr. PORTER. Do you want me to read that paragraph?

Senator CHAFEE. I see, "unless upon application by an interested person." You are saying that EPA is the interested person?

Dr. PORTER. No; I am saying, look at the parenthetical thought right before that, where it says: "For purposes of this paragraph," let me read it, if I could, very briefly.

> For purposes of this paragraph, a method of land disposal may not be determined to be protective of human health and the environment for hazardous wastes referred to in paragraph 2 (other than a hazardous waste which has complied with the pretreatment regulations promulgated under subsection (m).

In other words, we are supposed to promulgate treatment requirements, or pretreatment requirements, and we are saying, if you meet those levels, then you don't necessarily need to do it by a petition.

I might also point out, Senator, that we have the petition process in as an alternative also. We have not finally decided to go in this direction.

Senator CHAFEE. I don't think that the direction you are going is the right one.

Just quoting from Ms. Greer's testimony, and I agree with this, where she refers back to our amendments in 1984:

> The centerpiece of these amendments directs EPA to review all the hazardous waste regulated in the RCRA system, and to prevent the land disposal of untreated wastes unless a petitioner can show that there will be no migration from the disposal unit for as long as the wastes remain hazardous.

So, it seems to me that this is not a health-based screening level, it is no migration.

Dr. PORTER. Again, I think there are two points. One, she left off the part about the pretreatment that I just read to you, that we think if you meet those regulations, you are OK. Second, we have a fundamental disagreement. I suppose what she is saying is, if you have one times $^{1}\!/_{15}$ parts per million of the chemical, if that chemical is toxic, it is toxic in those levels.

We are saying that if you can get low enough, it is not toxic. That is where, I think, we have the fundamental disagreement as to what migration means. We are saying that if the concentration is low enough—we are admitting that there is a chance, notwithstanding what she said, because she misquoted our proposal, if the liner fails or if something does get out of the system and it does migrate, we are looking at a worst case situation. We are saying, in that worst case situation, we want to have enough margin for error that there will not be levels high enough to be hazardous in those concentrations.

Senator CHAFEE. Isn't "hazardous" a term of art, let me ask your counsel.

Mr. BLAKE. It is in some circumstances. Here what we are saying is that as long as the wastes remain hazardous, there is still discretion for the Agency to say, this particular waste, under these circumstances, is not hazardous.

Senator CHAFEE. You missed me with that one. So long as the waste remains hazardous.

Mr. BLAKE. You will see that the sentence has two references to the term "hazardous." There is the reference to hazardous constituents, that there will be no migration of hazardous constituents from the disposal unit for as long as the wastes remain hazardous.

The sentence seems to draw a distinction between hazardous constituents, and the wastes themselves remaining hazardous.

Senator CHAFEE. Let me give you an example here of what we are talking about, and this is a quote: "no migration for as long as the waste remains hazardous," that is the term in here. That test was selected to account, for example, for neutralization of ponds. Are you with me?

Dr. PORTER. Yes.

Senator CHAFEE. Wastes that are hazardous due to characteristics of acidity can be neutralized and placed in such ponds, and rendered nonhazardous before there is any migration from the disposal unit.

Dr. PORTER. Yes.

Senator CHAFEE. You agree with that.

Dr. PORTER. I agree with that.

Senator CHAFEE. There is one example.

Do I understand that what you are proposing is that you would allow the migration of the wastes they are neutralized in this instance?

Dr. PORTER. Not if they were hazardous to somebody or something. The fundamental thesis we have is that we are trying to set, for carbon tetrachloride, for ethyl benzene, and these other chemicals, we are trying to set levels—we have asked for comments on this from scientists and so forth—which we believe are not hazardous to anyone or anything. Then we have said, that level is OK.

What I am doing here, I am trying to be protective of human health and the environment. I am not trying to treat for treatment's sake, because in point of fact, treatment can create problems if you just do it in a willy-nilly sort of way.

Senator CHAFEE. Where do you get the authority not to treat for treatment's sake?

Dr. PORTER. By the law, that is the way we read the law.

Senator CHAFEE. We read the law a little differently. We read the law that Congress didn't allow you much latitude here, and didn't allow you much discretion, and that you are assuming more discretion than the law gives you. That is what is involved with this whole no migration argument that we are in.

Dr. PORTER. Senator, I really feel that I have a moral obligation to look at the total effect on human health and the environment, and I think that we have been legal. Admittedly, we have not been as simplistic as just to say, treat it or don't treat it. As I have said before, treatment is not without its problems also.

We think that we are within the law, but we also think that we are being protective of human health and the environment. I think that this is the thing that I have to be very concerned about.

Let me keep emphasizing another thing, too. Most of the wastes we are talking about here would require treatment. The overwhelming majority of the wastes will require treatment. We are

saying in some cases, where the level is so low that we don't think it would pose any particular hazard to health, we don't have enough treatment capacity in the country, in my judgment, when we look at all the additional regulations coming up, and so forth, to be treating for treatment's sake.

Senator CHAFEE. We have a difference. You were here during the prior panel, I assume.

Dr. PORTER. Yes, I was.

Senator CHAFEE. I think that those differences were pretty well set forth by the prior panel.

What is the situation on the proposed rule? You have it out there for comment.

Dr. PORTER. That is right.

Senator CHAFEE. As I understand, in the House, you were asked if you would consider withdrawing the proposed rule, or if you were willing to consider withdrawing the proposed rule.

Dr. PORTER. That is correct.

Senator CHAFEE. Your answer was, no.

Dr. PORTER. That is correct.

Senator CHAFEE. You wouldn't even consider it.

Dr. PORTER. I think, Senator, if I could just respond to that. The rule is out there, and the comment period closes March 17. We have as an alternative in our rule, which we will consider very, very strongly, the option, which is what I call the "black and white option," which is to treat it, or rely on a petition process.

We want to weigh all of the inputs we get from the Congress as well as the public, and then make a decision. But I see no purpose in withdrawing it at this point because even if your views prevail, and your sense that we have not followed the intent of Congress, we will certainly consider that. We could go another way if, in fact, that we think that is the way we would like to go.

Senator CHAFEE. I think there are two things that I am thinking about.

One, I don't want you coming out with rules that are against the law because not only is it not the right thing to do, but I just don't think that we want to put a host of people to the task of battling out the U.S. Government in court, and we don't want the U.S. Government people to be tied up in court. We have better things for you to do.

Second, we try to give the agency some discretion, but we didn't give you an awful lot of discretion in the RCRA amendments in 1984. We strapped you down pretty tight. I am not sure that that is the best way to go, but certainly it will be the attitude of the conferees in Superfund, that if you give the EPA any discretion, or you don't give them discretion, they still assume it.

So it is not a strong argument for mutual confidence and respect, and trust, if you would, between the two groups, between us and you.

Dr. PORTER. Senator, we simply feel that the way we proposed is legal and can be a good technical way to proceed. But we certainly will consider the alternatives. We are by no means trying to circumvent the intent of Congress, or the law.

The only thing, as I said, that I am somewhat chagrined about, I wish we would have had more dialog earlier on the subject.

Senator CHAFEE. More dialog?

Dr. PORTER. Yes.

Senator CHAFEE. Yes, but you have heard the argument, the lack of dialog came because you didn't tell anybody up here that you were coming out with your proposed regulations.

We will be having more dialog on it. I don't want confrontations between us and you. I don't look on this committee as a committee solely here to be an antagonistic, confrontational system with EPA. I look on it as the committee on the Hill, in the Senate anyway, that is designed to assist us in reaching our mutual goals. Oversight hearings are necessary, and we will have those, but I far prefer to spend my time on constructive efforts, moving ahead on something that we are both seeking. I don't think that we are doing that in this instance.

Dr. PORTER. I understand your comments, and we will certainly take them into very strong consideration.

Senator CHAFEE. I want to thank you for coming, and all the other witnesses as well. Thank you.

The subcommittee stands adjourned.

[Whereupon, at 4:28 p.m., the subcommittee adjourned.]

[Statements submitted for the record and the act H.R. 3917 follow:]

TESTIMONY OF MARK S. HYNER

WHYCO CHROMIUM COMPANY, INC.

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

SENATE COMMITTEE ON THE ENVIRONMENT AND PUBLIC WORKS

ON

SUBSTITUTE TEXT FOR H.R. 3917

FEBRUARY 24, 1986

SENATOR CHAFEE, MEMBERS OF THE SUBCOMMITTEE, COUNSEL, AND STAFF: MY NAME IS MARK HYNER AND I AM PRESIDENT OF WHYCO CHROMIUM COMPANY LOCATED IN THOMASTON, CONNECTICUT. IT IS INDEED A PLEASURE TO BE HERE AGAIN AND I THANK YOU FOR YOUR INVITATION TO APPEAR.

FOR YOUR BACKGROUND INFORMATION, WHYCO CHROMIUM COMPANY IS ENGAGED IN THE METAL FINISHING AND ELECTROPLATING BUSINESS. WE SERVICE SUCH INDUSTRIES AS AUTOMOTIVE, COMPUTERS, MEDICAL, ELECTRONICS, COSMETICS AND HARDWARE. WHYCO EMPLOYS APPROXIMATELY 165 PEOPLE. LAST YEAR OUR SALES WERE 13 MILLION DOLLARS AND WE HAD A PAYROLL IN EXCESS OF 4 MILLION DOLLARS. WE ALSO SPENT 1.6 MILLION DOLLARS FOR POLLUTION CONTROL OPERATIONS AND THIS FIGURE DOES NOT INCLUDE SUBSTANTIAL CAPITAL EXPENDITURES IN THAT AREA.

ON THREE PREVIOUS OCCASIONS IT HAS BEEN MY PRIVILEGE TO TESTIFY BEFORE THIS SUBCOMMITTEE OR ITS COUNTERPART IN THE HOUSE. ON ALL OCCASIONS, I HAVE ASKED THAT YOU ADOPT STRONG, REASONABLE AND ENVIRONMENTALLY SOUND LAWS. IN FACT, ON THE LAST OCCASION I WAS ASKED HERE BY THE CLEAN WATER ACTION PROJECT BECAUSE OF THOSE STRONG PRO-ENVIRONMENTAL VIEWS. I MENTION THIS ONLY TO BETTER ACQUAINT YOU WITH MY COMPANY'S HISTORY WITH REGARD TO FEDERAL ENVIRONMENTAL PROGRAMS.

FURTHER, I WISH TO STATE THAT WHYCO FULLY AGREES WITH THE PURPOSE AND GOALS OF THE RESOURCE CONSERVATION AND RECOVERY ACT. TO THAT END, WE HAVE IMPLEMENTED AND WILL CONTINUE TO IMPLEMENT WASTE RECYCLING AND RECLAMATION PROCEDURES WITHIN OUR MANUFACTURING FACILITY. HOWEVER, OUR

BEST EFFORTS IN THIS REGARD WILL NOT TOTALLY ELIMINATE OUR NEED FOR SOLID WASTE DISPOSAL ESPECIALLY THOSE CREATED AS A RESULT OF OUR WATER TREATMENT PROGRAM.

THEREFORE, A FEW YEARS AGO, WHYCO MADE THE DECISION TO SEEK INTERIM STATUS AS A DISPOSAL FACILITY UNDER RCRA. WE OPERATED THIS FACILITY STRICTLY TO DISPOSE OF SOLID WASTES WHICH WERE GENERATED SOLELY AS A RESULT OF OUR OWN WASTE WATER TREATMENT PROGRAM. WE NEVER HAVE NOR DO WE EVER INTEND TO ACCEPT WASTE FROM ANY OTHER SOURCE.

ON NOVEMBER 8, 1985 WE FILED OUR PART B APPLICATION AND WERE ABLE TO CERTIFY THAT WE MET ALL RCRA REGULATIONS AND REQUIREMENTS EXCEPT ONE. MY COMPANY WAS NEITHER LARGE ENOUGH TO MEET FINANCIAL TESTS UNDER 40 C.F.R. 265.147 (F) NOR WERE WE ABLE TO OBTAIN ENVIRONMENTAL LIABILITY INSURANCE.

THUS ON THAT SAME DAY WE CLOSED OUR DISPOSAL SITE AND BEGAN SHIPPING OUR SOLID WASTES OFF SITE. WE DID THIS SO THAT WE WOULD REMAIN IN STRICT COMPLIANCE WITH THE LAW. OUR PROJECTED COSTS FOR SHIPPING OFF SITE FOR THE NEXT YEAR ARE, AT A MINIMUM, 488,000 DOLLARS AND THAT ASSUMES THAT DISPOSAL COSTS REMAIN CONSTANT.

REGARDING INSURANCE, WHYCO HAS BEEN SEARCHING FOR ENVIRONMENTAL LIABILITY INSURANCE FOR SOME TIME NOW. I HAVE PERSONALLY EXPLORED EVERY POSSIBLE AVENUE, WHERE THERE EXISTED EVEN THE FAINTEST HOPE OF ACQUIRING A POLICY. WE CURRENTLY HAVE TWO APPLICATIONS PENDING BUT I HAVE ALREADY BEEN TOLD THAT NEITHER CARRIER WILL ISSUE COVERAGE ANYWHERE NEAR THE $3,000,000/$6,000,000 RCRA REQUIREMENT. TO THE BEST

58-746 O - 86 - 3

OF MY KNOWLEDGE NO MARKET EXISTS TODAY AT ANY PRICE.

AS A RESULT OF THIS DILEMMA, ALL OF WHYCO'S FUTURE PLANS ARE CURRENTLY ON HOLD. THE ENGINEERING PORTION OF OUR PART B APPLICATION, WHICH COST US OVER $50,000, CONTAINS A PROPOSAL TO BUILD THE FIRST STATE-OF-THE-ART HAZARDOUS WASTE DISPOSAL SITE IN CONNECTICUT. AS FAR AS I HAVE BEEN ABLE TO DETERMINE IT WOULD ALSO BE THE FIRST OF ITS KIND IN NEW ENGLAND.

THIS FACILITY WOULD BE EQUIPPED WITH DOUBLE SYNTHETIC LINERS, A LEACHATE COLLECTION SYSTEM AND A LEAK DETECTION SYSTEM, ALL OF WHICH WOULD BE PLACED OVER TWO FEET OF RECOMPACTED CLAY. A MAJOR ADVANTAGE OF THE SITE IS THAT THE LEACHATE COLLECTION SYSTEM WOULD BE TIED DIRECTLY INTO OUR EXISTING WATER TREATMENT SYSTEM.

THE ADVANTAGES OF THIS PROPOSED FACILITY ARE FURTHER ENHANCED BY WHYCO'S LOCATION. WE ARE LOCATED ON A CLASS B RIVER AND WE ARE NOT NEAR ANY CURRENT OR POTENTIAL DRINKING WATER SUPPLY. WE ARE PROTECTED BY FLOOD CONTROL DAMS WHICH PUT US OUTSIDE OF THE 100 YEAR FLOOD PLAIN.

IF WE WERE ABLE TO BUILD THIS FACILITY THE END RESULT WOULD BE THAT THE PROBABILITY OF ANYTHING ENTERING THE ENVIRONMENT FROM THE SITE WOULD BE NEAR ZERO. YET WE ARE PREVENTED FROM BUILDING IT BECAUSE THE LAW REQUIRES ME TO BUY SOMETHING WHICH IS NOT FOR SALE.

BECAUSE OF THIS PROBLEM, THE ALTERNATIVE FOR WHYCO IS TO CONTINUE TO SHIP OFF SITE. ENVIRONMENTALLY AND ECONOMICALLY THAT MAKES ABSOLUTELY NO SENSE. I WANT WHYCO'S WASTES TO

REMAIN ON SITE WHERE OUR STAFF CAN CONTROL THEM. I WANT THEM TO REMAIN IN A MONOFILL WHERE THERE IS NO CHANCE OF INCOMPATIBLE MATERIALS COMING ANY WHERE NEAR THEM. I DO NOT WANT OUR WASTES TRANSPORTED FOR HUNDREDS OF MILES OVER THE OPEN ROAD. I DO NOT WANT TO WORRY ABOUT HOW SOMEONE ELSE HANDLES THEM. I DO NOT WANT TO PAY FOR A CLEAN UP IN BUFFALO OR ELSEWHERE IF SOMEONE THERE MISHANDLES OUR WASTE OR SOMEONE ELSE'S WASTE. THAT POTENTIAL EXISTS TODAY. LASTLY, I DO NOT WANT TO THROW AWAY $500,000 DOLLARS OF TAXABLE INCOME A YEAR ONLY TO HAVE THAT RESULT IN MORE POTENTIAL ENVIRONMENTAL HARM THAN GOOD.

WHYCO HAS ALWAYS PRIDED ITSELF ON BEING A MODEL ENVIRONMENTAL CITIZEN AND A STRONG SUPPORTER OF SOUND ENVIRONMENTAL GOALS. NOW WE NEED YOUR HELP AS SOON AS POSSIBLE IN ORDER THAT WE MAY CONTINUE TO BE A MODEL CITIZEN. WE WILL BUY WHATEVER IS NECESSARY TO DO THE JOB RIGHT BUT THAT PRODUCT MUST BE THERE FOR US TO ACQUIRE.

PLEASE UNDERSTAND THAT WHYCO'S PROBLEM IS NOT ONE OF OPERATIONAL OR PHYSICAL COMPLIANCE BUT RATHER IS ONE OF REGULATORY COMPLIANCE.

THEREFORE, I URGE YOU TO PLEASE MOVE AS QUICKLY AS POSSIBLE TO ENACT THE LEGISLATION YOU ARE NOW CONSIDERING. THE ONLY CHANGE I SUGGEST IS THAT THE LANGUAGE IN SECTION G OF THE SUBSTITUTE TEXT FOR H.R.3917 REVERT BACK TO THE HOUSE VERSION. I WOULD NOT LIKE TO SEE THE ADMINISTRATOR STEERED TOWARD ONLY ONE ALTERNATIVE TO INSURANCE. IT WOULD BE FAR BETTER TO HAVE SEVERAL ALTERNATIVES AS H.R.3917 SUGGESTS. EPA HAS ALREADY SUGGESTED SEVERAL ALTERNATIVES, FOR EXAMPLE, THOSE LISTED IN THE FEDERAL REGISTER, DATED AUGUST 21, 1985. (SEE VOL. 50, NO. 162, PGS. 33902-33909)

THANK YOU AGAIN FOR YOUR TIME.

WHYCO CHROMIUM COMPANY, INC.
WATERBURY ROAD • P.O. BOX 160 • THOMASTON, CONN. 06787-0160
TELEPHONE (203) 283-5826

March 10, 1986

Senator John H. Chafee
567 Dirksen Building
Washington, D.C. 20510

Dear Senator Chafee:

Per your request at the hearing of February 24, 1986, I have enclosed back-up information detailing Whyco Chromium Company's efforts to obtain insurance.

Prior to May, 1985, communications between myself and Root and Boyd, Inc., our insurance agency, were handled on a verbal basis. Therefore, on returning from Washington, I asked my agent to check his notes and to send a letter detailing his efforts. His response is dated February 26, 1986 and should prove especially enlightening.

As of May, 1985, I requested that all communications be in writing since I felt that at some point documentation would be requested. For your convenience, a summary is listed below.

Exhibit #1	1984 - May 1985	please refer to letter dated Feb. 26, 1986
Exhibit #2	May 1985	Applications submitted
Exhibit #3	June 6, 1985	After conversation with State of Conn. DEP, sent suggested lists to agent
Exhibit #4	June 13, 1985	Agency responds to list - No Source Available
Exhibit #5	June 19, 1985	Agency responds to my request for further detail.
	August 8, 1985	I attended a meeting with ARALIE, Inc. regarding their attempts to form the Hypercept Insurance pool. As of March 1986, that pool still has not been formed and is not a source of insurance.

Exhibit 6	August 1985	Requested Root & Boyd to attend a Hypercept meeting just in case I misinterpreted their presentation. Root & Boyd concurred with my findings. Please see letter dated Jan. 25, 1986.
	Sept. 1985	Submitted quotation request to St. Paul Insurance Co.
Exhibit 7	October 15, 1985	Received quotation with limits of 1,000,000/1,000,000 NOT 3,000,000/ 6,000,000 as requested.
Exhibit 8	October 30, 1985	Again, requested St. Paul to quote higher limits. St. Paul would NOT quote higher limits.
Exhibit 9	August 1985	Submitted quotation through American Mutual Insurance to PLIA.
		Their response, dated Feb. 12, 1986, indicated that they will not write at RCRA limits.
Exhibit 10	Nov. 8, 1985	Letter from Root & Boyd, again stating no market is available.
Exhibit 11	Dec. 4, 1985	Whyco internal memo re: conversations with other brokers.
Exhibit 12	Jan. 15, 1986	Sent application to AIG through Metropolitan. Please refer to Whyco internal memo and letter received 1/16/86.

I hope this documentation meets your requirements, however, if you need any further information, please do not hesitate to call.

Sincerely,

WHYCO CHROMIUM COMPANY, INC.

Mark S. Hyner
President

MSH/m

enc.

[Note: All of the above mentioned exhibits with the exception of Exhibit 1 have been retained in the committee files.]

ROOT & BOYD, INC.
SINCE 1893
INSURANCE REAL ESTATE
& FINANCIAL SERVICES

ROOT&BOYD

101 SOUTH MAIN STREET
P O BOX 2600
WATERBURY CONNECTICUT 06723
203 753 1234

Exhibit #1

February 26, 1986

Mr. Mark Hyner, President
Whyco Chromium Company, Inc.
650 Waterbury Road
Thomaston, CT 06787

Dear Mark:

Relative to our conversation concerning the non-availability of pollution liability insurance, I have attempted to check my notes concerning our efforts to obtain the non-sudden portion of the pollution liability insurance in the time frame from approximately the last quarter of 1984 to the present time.

During the period of the last quarter of 1984 to approximately the middle of 1985, my notes indicate we made numerous calls to the excess lines brokers who were dealing in this market. Some of these excess lines brokers are:

S.H. Smith Company, Sweat & Crawford, Agency Intermediatories, Cowles & Connell, Connecticut Underwriters, Continental Insurance Company, Distel Company, and Fort Hill Company.

For the period of time in 1984 and 1985, there seemed to be absolutely no market for this insurance. There were several companies such as the American International Group and Amalie, Inc. who were offering forms of self-insurance, but neither program appeared to be viable and I did not recommend that we seriously consider either company. There appeared also at this time a number of inquiries whether we would be interested in a Bermuda based off shore captive. Again, all of which seemed not to be serious possibilities for pollution insurance.

As per our conversations in 1985, the Pollution Liability Insurance Association (PLIA) was not able to effect any alternatives in the insurance industry concerning pollution liability

ROOT&BOYD

insurance. In 1985, the industry was also withdrawing from the sudden and accidental pollution provisions of the standard general liability form, and at the present time the vast majority of companies are without any form of pollution liability: whether it be sudden or non-sudden.

While our records are not kept in an exact date by date basis as to when we make inquiries as to the availability of pollution insurance, it is the standard procedure of our Marketing Department (almost on a weekly basis) when speaking to our excess line brokers and our regular companies to keep searching for any available market. We had numerous conversations with Miss Crawford of the State Department of Environmental Protection Agency advising her that we had no markets and if she had any new ones, to make us aware of them.

In the second and third quarters of 1985, it appeared as though the St. Paul Excess Company through Sweat and Crawford was going to offer some limited coverage. After making a due diligent effort and completing some applications, we requested that St. Paul make some inspections for quotations and before this process got partially through, the St. Paul pulled out of the market.

Mark, as your insurance broker, we have worked consistently to obtain this coverage for you and for a number of other similar insurance risks.

All of our efforts from the end of 1984 to the present, have been to no avail. As one of the largest independent brokers in the State of Connecticut and insuring many businesses that require pollution liability coverage, we have not been able to find any market. We will continue as we have in the past to constantly search the marketplace, and will keep you informed of our efforts.

Sincerely,

ROOT & BOYD, INC.

Robert D. Summit
Senior Consultant

RDS/cls

T E S T I M O N Y

Submitted To: Subcommittee on Environmental Pollution
Senate Committee on Environment and Public Works

February 24, 1986

Offered By: Robert M. Genereau, President
Stanley Plating Company
Bristol, Connecticut

Good afternoon Mr. Chairman and distinguished members of the Subcommittee. I am Robert N. Genereau, President of the Stanley Plating Company of Bristol, Connecticut.

It is an honor and a privilege for me to testify before you as our nation continues to seek means to achieve a safe and clean environment for our own protection, and that of future generations of Americans. In the area of hazardous waste management, the problems we face are real, the tasks are enormous and expensive, but our goals for a safe, clean environment must be realized. As the President of Stanley Plating, as the former Director of the National Association of Metal Finishers and Chairman of its RCRA/CERCLA committee, as a member of former Connecticut Governor Grasso's Hazardous Waste Task Force, and as a current member of the Connecticut Hazardous Waste Management Service, I am acutely aware of the complexity of the tasks before us.

It is my personal philosophy and the philosophy of Stanley Plating, that our nation must grapple with these difficult issues, and we must take decisive and effective steps to regulate hazardous waste management in a manner consistent with the goals of a safe environment and economic prosperity. It is in the hope of advancing toward these goals that I testify today in support of H.R. 3917. Parenthetically, let me add that while I speak only on behalf of Stanley Plating, I can assure you that my neighborly enterprise, Plainville Electro Plating Company, wholeheartedly endorses the views I am expressing today.

COMPLIANCE HISTORY:

Stanley Plating is a 40 year old company which utilizes metal finishing and electroplating techniques to apply metal coats to base metals serving the defense, automotive, computer and electronic industries, among others. The electroplating industry's processes, by their very nature, prevent deterioration, rusting and wasting of resources while at the same time having the potential for pollution. In this sensitive area, Stanley is proud to have a record of environmental compliance that has been characterized as exemplary by the regulatory agency. We have never been cited by an environmental agency for any type of violation. We have never paid a fine and have never been taken to court.

Of course, our record is not a fortuitous happenstance. Instead, it is the result of major capital expenditures for environmental protection, proper operation and maintenance procedures, training programs for personnel and a serious commitment to flawless results. To provide just one illustration of our commitment, we have spent over $3 million on our waste treatment systems alone during a period which generated gross revenues of roughly $41 million.

In view of our flawless record, you can understand why I take great pleasure in describing all of our environmental programs. Today, however, I will limit my remarks to hazardous waste management compliance.

THE WASTE WATER TREATMENT PROCESS IS THE REGULATED UNIT:

In our waste management process, we utilize a facility commonly called a "lagoon" or "surface impoundment". This lagoon was designed to serve and was approved as a state-of-the-art technology. It is not a disposal facility or a storage facility, nor will it ever be used as such. It is an integral part of our water pollution control program mandated by the terms of our NPDES permit issued to implement the Clean Water Act. Initially, commentators suggested that treatment processes and components regulated pursuant to NPDES (water discharge) were exempt from regulation under RCRA. The 1984 Amendments, while strengthening the overall RCRA program, appeared to establish that lagoon systems are subject to the land disposal requirements of RCRA. Under the 1984 Amendments, a land disposal facility lost its interim status on November 8, 1985 unless it submitted its complete application for a full Part B permit and certified that it was in compliance with the interim status groundwater monitoring and financial insurance and assurance requirements.

In timely fashion, we submitted our Part B application for a full permit and filed certifications that: our groundwater monitoring system is in full compliance, and that financial assurance requirements had been met. (See Schedule A).* However, despite full-scale attempts to satisfy the necessary financial insurance requirements, we have been unable to secure the insurance policies required by 40 CFR Part 265, Subpart H. Efforts have been ongoing since the Fall of 1984. Stanley is continuing to seek the proper policies despite the fact that EPA has stated that purchase of a policy after November 8, 1985 will not renew interim status.

*Retained in committee files.

We are faced with a conundrum that would exasperate Solomon. On the one hand, we are a clean and safe facility that is required to cease use of the regulated unit if we fail to file the certifications. On the other hand, if we file a false certification, we are subject to criminal prosecution. At the same time, while we pose no actual or anticipated environmental problems while remaining open, untimely (rapid) discontinuance of the use of the lagoon will present several potentially dangerous situations.

RCRA EVOLUTION:

How did we find ourselves in this position? Ironically, the answer lies mainly in our compliance activities being buffeted by the shifting winds of regulatory change. As you know, RCRA was originally added to the Solid Waste Disposal Act in 1976 as Subtitle C. The regulations implementing RCRA, which became effective in 1980, provided that clay-lined lagoon treatment processes designed to comply with the discharge requirements of the NPDES program would satisfy RCRA. Notably, Connecticut's NPDES requirements are more stringent than the federal NPDES guidelines. (See Schedule B). Thus, our compliance with the state issued NPDES permit yielded greater environmental protection than was required under either federal RCRA or the federal Clean Water Act. Thus, until the 1984 Amendments were being debated, we had no cause for concern regarding either the adequacy of our system's design or its performance.

It was only after the legislative debate drew to a close that we became aware that some technology other than our system was required for the lagoons. Exactly what technology would be required was not clear until a rather late date, considering the associated timetables provided in the Amendments. The requirements that were finally adopted left Stanley with the option of either retrofitting its lagoon or terminating its operation.

STANLEY'S RESPONSE:

Originally, we planned to retrofit the lagoon. We installed the groundwater monitoring system, we established the appropriate letters of credit for closure and post-closure, we prepared a Part B application, and we undertook to obtain the appropriate insurance policies as early as September 1984. In the wake of repeated failure to obtain

the insurance (and despite ever increasing efforts to obtain it), we concluded, in September 1985, that we must close the lagoon to comply with the new law. (See the complete chronology set forth in Schedule C).*

On April 12, 1985, EPA issued a policy which clearly was founded on good sense. In sum, the policy stated that so long as the owner/operator of the facility demonstrated good faith in attempting to secure environmental impairment liability insurance, no enforcement action would be taken. Of course, we continued our efforts to obtain the insurance. Our first positive response did not come until June of 1985 with the policy being first made available for our review in late August of 1985.

Prior to our loss of interim status, we submitted to EPA and the State a copy of that policy. Our submission requested comments from the agencies with respect to the adequacy of the only coverage offered vis-a-vis the Subpart H requirements. In follow-up telephone calls, EPA told us that the policy was inadequate, but that Connecticut is the appropriate decision maker. Subsequently, Connecticut informed us that it reviews only the certification, not the policy. This response was wholly unsatisfactory because if I or anyone else from Stanley Plating submitted the certification to Connecticut, and it was then determined to be false or inaccurate, the company and/or the individual could face criminal sanctions. Due to the deficiency of the policy and the negative comments by regulatory personnel, Stanley could not in good conscience submit the certification. In this same regard, we received ongoing assurance from October 1985 through January 1986 from EPA that a written confirmation of their assessment of the policy would follow. It was not until January 28, 1986, that EPA informed us that they would not comment on the insurance policy. In response, we filed a Request for Variance with EPA.

In the early Fall of 1985, we voluntarily approached the Connecticut Department of Environmental Protection with whom we entered into a Consent Order providing for the closure of the waste water treatment system (the lagoon) in accordance with a schedule that would allow time to design, engineer, construct and debug a new water treatment system. The sensibility of this approach is manifest. That is, while a new state-of-the-art system is being built, the wastes

*Retained in committee files.

continue to be treated in a lagoon system which has heretofore thoroughly protected the environment surrounding the lagoon and which is an important component of the discharge system which has a remarkable compliance record with stringent NPDES permit limitations. This Consent Order has further benefits over simple compliance with the 1984 Amendments. It will result in prompt closure of the unit, whereas the Amendments simply call for use of the unit to cease. The alternate approach, i.e., cessation of the use of the lagoon before the new system is in place potentially threatens the environment because of the need to handle and transport the waste stream to off-site facilities which we do not operate, and which may not, as a practical matter, protect the environment as well as our present system does. EPA has long recognized that the potential for catastrophe is greater when wastes are transported than when wastes are treated on site. In addition, spillage during the loading of wastes onto trucks is virtually inevitable. Finally, our studies reveal, disturbingly, that sufficient safe transportation is not actually available. In contrast, the Consent Order is consistent with environmental protection goals in practice. However, due to the absence of the financial insurance certification, EPA notified us of our loss of interim status on November 25, 1985. Consequently, although we pose no environmental threat, we would bear the brunt of EPA's powerful enforcement authorities if EPA fails to exercise sound discretion in enforcement.

In sum, while we have actively sought proper insurance, we were offered only one policy. Our personal review and review of the policy by counsel and retained experts, as well as discussions with agency personnel confirmed our views. Therefore, Stanley could not certify, as the law requires, to the compliance of the policy with RCRA. While Stanley has lost interim status, it does not pose any environmental problems, past, present or anticipated. Moreover, we are in compliance with a state Consent Order requiring accelerated closure of the lagoon. The only alternative, immediately discontinuing use of the lagoon, poses a demonstrable environmental risk not posed by the present system. Meanwhile, I am potentially subject to EPA enforcement action if I remain in business.

RCRA's INSURANCE REQUIREMENTS

The following discussion illustrates some of the deficiencies in the only policy we were offered.

FEDERAL REGULATIONS	SPECIMEN POLICY
1. F.R. 264.14(a) requires the owner/operator to maintain liability insurance for sudden accidental occurrences and F.R. 264.14(b) requires the owner/operator to maintain liability insurance for non-sudden accidental occurrences.	Section II F. (Pollution Conditions) focuses on releases into or upon the land, the atmosphere or any watercourse or body of water which is gradual and fortuitous and neither expected nor intended by the insured

COMMENT:

The language of the Federal Regulation requires both sudden and non-sudden coverage whereas the policy appears to only provide insurance for non-sudden accidental occurrences.

2. F.R. 264.14(a) requires the owner/operator to demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences.	Section I. states that this policy insures against loss incurred by the insured as a result of liability arising from claims first made against the insured and reported during the policy period.

COMMENT:

The Federal Regulation uses language of occurrence whereas the policy is seemingly triggered and limited by the making of a claim.

3. F.R. 264.14(a) requires insurance for sudden accidental occurrence of at least $1,000,000 per occurrence and an aggregate of $2,000,000, exclusive of defense costs. F.R. 264.14(b) sets the requirement for non-sudden as	Section II.B. defines loss to include not only bodily injury and property damage, but also costs, damages and expenses of investigation, adjustment or defense of claims.

$3,000,000 per occurrence and $6,000,000 aggregate, exclusive of defense costs.

COMMENT:

It is not clear from the policy whether defense costs are excluded from or fall within the coverage limits

4. F.R. 264.14(b) requires the owner/operator of a surface impoundment to demonstrate financial responsibility to third parties for liability resulting from non-sudden $3M/$6M.	Section II.F. and Section IV.1. limit the nature of occurrences covered, by excluding not only those conditions which the insured is aware of, but also those which the company may itself determine could have reasonably forseen.

COMMENT:

It is very questionable whether this limitation on coverage is acceptable to the United States Environmental Protection Agency.

As the Federal Regulations make no provision for limitations or restrictions on policy coverage, we will not attempt to juxtapose the Federal Regulation with sections of the specimen policy, but rather comment on the policy restrictions evident in Section IV of the specimen policy. This Section, entitled "Exclusions", starts out by stating that, "This insurance does not apply to loss ...". This entry alone seems inconsistent with the Federal Regulations and even more so upon review of the scope of items excluded. This policy excludes coverage of loss:

"2. From Claims or Suits Seeking Non-Pecuniary Relief:"

COMMENT: Anyone involved with environmental dispute resolution today understands and fully contemplates that non-pecuniary relief may not only be considered, but might be the most expedient and practical means to resolve a given problem. To exclude this form of remedy from coverage seems contrary to the language of the Federal Regulations, sound business practices as well as the practical interests of an insurance company.

"6. Arising as a Result of Liability of Others Assumed by the Insured Under Any Contract or Agreement:"

COMMENT: While this provision is modified by separate endorsement to apply only to contracts relating to waste management activities, this exclusion is particularly troublesome to Stanley Plating as Stanley has an agreement with a client whereby an entire segregated portion of its facility at 60 Wooster Court, Forestville, Connecticut is dedicated exclusively to this client and the client's production. We are unable to obtain confirmation that this policy with this exclusion will result in Stanley's compliance with all relevant Federal Regulations.

"7. As a Result of Property Damage To ...
B. Property Used By The Insured
C. Property in the Care, Custody or Control of the Insured ..."

COMMENT: This exclusion presents many of the same problems outlined in our comment on exclusion #6 above and, therefore, we will not address this with separate comment.

Exclusion #8 has been revised by Endorsement to eliminate liability for loss: "arising out of the ownership, maintenance, use, operation, loading or unloading of ... rolling stock". Absent a clear definition of rolling stock, we fear that the exclusion is inconsistent with the now encompassing language of the Federal Regulations.

"12. Arising out of goods or products .. handled ... by the insured ... if the bodily injury or property damage occurs away from the premises owned by ... the insured and after physical possession ... has been relinquished".

COMMENT: We identify problems with this paragraph not only because it is another exclusion not discussed within the Federal Regulations, but also because we fear that the absence of defined terms within the policy could allow one to argue that damage could occur away from the premises after the insured relinquishes possession of a substance which seeped from the insured's property to the property of a downgradient property owner.

"13. Arising out of operations performed by ... insured, but only if the bodily injury or property damage

occurs after such operation had been completed ... and occurs away from the premises ...".

COMMENT: We are unable to confirm that this language is contemplated by EPA in its Federal Regulations.

Our review also indicates that the Endorsement addressing cancellation of the policy may not satisfy the U.S. EPA Regulation which requires direct notification to the United States Environmental Protection Agency.

The deficiencies set forth above clearly fall short of EPA's requirements. Unfortunately, this is the only offering which could have preserved our interim status.

IMPACTS OF 1984 AMENDMENTS

We have studied the 1984 Amendments to determine their impact on our present and future waste management practices. Specifically, we conducted a cost assessment which revealed that it is not cost effective to retrofit the existing lagoon to meet the new standards as compared to retaining our current waste treatment technology while constructing a new system consisting of internal metal settling and volume reduction (filter press) equipment. In addition, we have serious reservations regarding the current availability of any cost-effective technology which could be employed to successfully retrofit the existing lagoons to meet the stringent double liner and leachate collection requirements of the 1984 legislation. The equipment and the related design and engineering costs is extremely expensive in both man hours and dollars.

Importantly, we have also determined that it is logistically impossible for Stanley Plating to retain the necessary licensed and reputable waste transporters to implement the alternative of off-site treatment and disposal. We firmly believe that we are not the only metal plating company or generator in such a predicament. Indeed, it appears to us from statements made to the media by EPA officials that many of the impacts, particularly the dramatic difference between the projected and actual plant closure impacts, were not accurately predicted. Although we reiterate our sincere support for a strong and effective RCRA, we firmly believe that a serious re-examination of the insurance certification requirements of RCRA is imperative.

Re-examination should be based upon an accurate analysis of the laws impacts on environmental quality and economic prosperity especially in light of the specific problems associated with small businesses. For example, although large companies may be able to provide financial assurance certifications on the basis of their own resources or because insurance carriers may be able to offer attractive "package deals", our experience demonstrates that small businesses, even those which present virtually no environmental risks, individually or collectively, cannot avail themselves of either option.

ANALYSIS OF H.R. 3917 (SUBSTITUTE TEXT DATED 12/19/85)

The following comments are offered with a view toward clarifying certain ambiguities and addressing specific shortcomings. All references are to the proposed amended RCRA Section 3005(e).

* (4)(A) line 4: "treated as having been issued a permit"

COMMENT: The provision should clarify that for those facilities meeting the requirements set forth in the proposed amendment that interim status continued in effect after November 8, 1985.

* (4)(A)(iv) line 1: "the facility is not releasing"

COMMENT: The phrase should not be intended to include either approved discharges, or releases documented in groundwater that are subject to a Consent Order.

* (4)(A)(ix) line 9

COMMENT: The period at the end of the subparagraph should be deleted and the following language inserted: ", or, has entered into a Consent Order governing the receipt of hazardous waste at such facility."

* (C) lines 4 - 5: "treated as having been issued a permit"

COMMENT: This should be clarified to provide that issuance relates back to November 8, 1985. The suggested change would eliminate any gap in interim status between

November 8, 1985 and the date the Administrator receives the certifications.

* (C) lines 8 - 9: "continue for a period not to exceed 60 days after the date of such receipt"

COMMENT: Read in conjunction with subparagraph (B), this provision would effectively extend interim status for late filers for up to 120 days, while early filers could have as little as only 60 days. This appears anomolous in light of the overall RCRA intent to encourage expeditious compliance.

* (F) lines 3 - 4 and 19 - 20:

COMMENT: The November 8, 1986 date is longer than the 24 month period contemplated by the phrase "date of enactment by of the Hazardous and Solid Waste Amendments of 1984" which occurred on October 12, 1984. This discrepancy requires clarification.

* (G) line 1: "Not later than March 1, 1986"

COMMENT: First, a realistic date should be set. Second, we suggest that the date be established to fall several weeks before the termination of interim status provided for in this bill in order to avoid creating a period of non-permitted activity and its associated enforcement risk and administrative burden on EPA.

CONCLUSION

We strongly support the amendment to RCRA Section 3005(e)(4) as proposed in H.R. 3917, providing for an extension of the date for certification of compliance with the financial assurance requirements. This amendment recognizes the real difficulties many law abiding and environmentally conscious companies have encountered in their good faith attempts to comply with important legislation. In addition, it would insulate such companies from EPA enforcement actions by retroactively re-establishing interim status. We wish to emphasize that we support a change only to the Subpart H insurance requirements while preserving the current groundwater protection and letters of credit requirements. Obtaining letters of credit and installing the groundwater protection systems are requirements which all companies, acting in good faith, should have met. Therefore, we do not believe recalcitrant companies should be granted additional time.

Mr. Chairman, distinguished members of the Subcommittee, thank you for the opportunity to present the views of the Stanley Plating Company on this important legislation.

SCHEDULE B

CONNECTICUT WASTE WATER DISCHARGE LIMITS (NPDES)

Parameter	Monthly Average (mg/l)	Daily Maximum (mg/l)
Cd	0.1	0.5
Cr (Total)	1	2
Cr (Hexavalent)	0.1	0.2
Cu	1	2
Fe	3	5
Pb	0.1	0.5
Ni	1	2
Sn	2	4
Zn	1	2
Fluorides	10	15
Cyanide (Amenable)	0.1	0.2
Cyanide (Total)	0.65	1.2
TSS	20	30
TTP	---	1
TRC1	---	0.5
Ph Range	6 to 10	

FEDERAL WASTE WATER DISCHARGE LIMITS (NPDES)

Parameter	Monthly Average (mg/l)	Daily Maximum (mg/l)
Cd	0.26	0.69
Cr (Total)	1.71	2.77
Cr		
Cu	2.07	3.38
Fe		
Pb	0.43	0.69
Ni	2.38	3.98
Sn		
Zn	1.48	2.61
Fluorides		
Cyanide (Amenable)	0.32	0.86
Cyanide (Total)	0.65	1.20
TSS	31	60
TTO		2.13
TRC1		
Ph Range	6 to 9	

March 4, 1986

Senator John H. Chafee
Subcommittee on Environmental Pollution
Committee on the Environment and Public Works
U. S. Senate
Washington, D.C. 20510

RE: R.C.R.A. (H.R. 3917)- Interim Status

Dear Mr. Chairman :

This correspondence is in response to issues and questions raised by you and Senator Mitchell as a result of the Hearing held on February 24, 1986 regarding H.R. 3917.

Initially, let me dispel any notion that Stanley Plating is one of just a small handful of companies voicing a concern of a very limited special interest group. To the contrary, Stanley's position is common to virtually all of the members of the plating industry that have paid close attention to compliance with the requirements of the Clean Water Act. As we indicated in our testimony, if Stanley Plating and other environmentally conscious members of the industry had not utilized lagoons or surface impoundments to treat waste water, we would not have had the need for a lagoon or surface impoundment and, therefore, not had this problem or the need for sustaining interim status today. It is only as a result of being environmentally conscious that we are in this predicament.

In addition, we take issue with many of the statements made by Richard Fortuna of the Hazardous Waste Treatment Council, as well as by Dr. Suellen Pirages. We understand that both of these witnesses were selected largely as rebuttal to our panel, but unfortunately I must point out that it is our opinion that many of their statements were false and misleading. In the interest of time, we will highlight only select inaccuracies. However, if the Subcommittee would like more detailed comments and rebuttal of their testimony, we would be happy to supply additional analysis.

As you know, Richard Fortuna stated that "... only 50 of the approximately 1,500 land disposal units subject to the November 8 deadline will lose interim status solely because they have no liability insurance." This statement, which was reiterated by Dr. Pirages is extremely misleading. As you probably already recognize, many companies were not included in the 1,500 estimate because they failed to comply with the Clean Water Act and, therefore, never needed waste water treatment (i.e. lagoons). Consequently, they never became land disposal units. In addition, with respect to the companies that did or presently do have the land disposal units, many came to the early realization that they could not secure environmental impairment liability insurance. It is our understanding that some simply refused to file certifications to avoid highlighting a particular deficiency. Perhaps most misleading is the inference that only 50 companies lost interim status for failure to have insurance. Many companies which lost interim status for failure to provide for financial assurance and/or groundwater monitoring also could not obtain insurance.

Mr. Fortuna's and Dr. Pirage's testimony admittedly shed some light on the perspective of large industry involved in hazardous waste management, but utterly failed to address the issues and difficulties confronted by environmentally conscious smaller businesses. We believe that both Dr. Pirages and Mr. Fortuna actually supported our testimony by acknowledging extreme difficulty in acquiring or finding available insurance products today.

In his written statement, Mr. Fortuna suggested that the legislature should provide temporary relief to environmentally responsible smaller industries. We refer you to page 7 of Mr. Fortuna's testimony where he identifies the types of businesses he feels should receive temporary extensions or exemptions, as well as his recommendations for the nature of that exemption. We concur with much of what Mr. Fortuna says on page 7, but feel that H.R. 3917 far more effectively addresses the insurance issue while doing a better job of protecting the environment.

During the hearing, Senator Mitchell requested that we explain how Mr. Fortuna and Dr. Pirages could say that the financial insurance requirement could be met while our panel suggested that it could not be met.

We have attached to this letter a list of persons and entities contacted by Stanley Plating* in its effort to acquire environmental impairment liability insurance as well as lengthy chronologies** detailing the efforts of Stanley Plating Company and Plainville Electroplating Company*** to acquire said insurance.

As a result of our sincere but unsuccessful efforts, we are extremely doubtful that 500 companies have secured insurance policies consistent with the Federal Regulations. It is our belief that:

1. A certain number of the 500 were those who had existing policies which extended beyond the November 8, 1985 deadline. This allowed them to certify as to the presence of a policy on November 8, 1985. It is important to note that while the certification may be in place, the policy may have expired long ago and may not have been renewed.

2. It is our understanding that some other companies prepared their certification at an early or advanced date with full knowledge that they would lose their insurance prior to November 8, 1985. This approach, consistent with a literal reading of the law, provides no assurance of insurance coverage after November 8, 1985.

3. To quote Mr. Fortuna from page 4 of his outline: "The treatment council's recent survey of the environmental

*See Schedules A and C

**See Schedules B-1 and B-2

***We are neighbors of the Plainville Electroplating Company of Forestville, Connecticut. Plainville wholeheartedly supports our position on H.R. 3917 and has authorized our inclusion of its chronology in this letter.

insurance market reveals that RCRA's sudden and non-sudden coverage is difficult but not impossible tc find. The American International Group (AIG) is still writing policies." In our written testimony we analyzed a specimen policy from AIG. In addition to the deficiencies apparent in our review, regulatory personnel from EPA considered the AIG policy inadequate. For this reason, we must point out that a number of the companies that secured AIG coverage and certified to the adequacy of this coverage, may very well have certified to a product which fails to satisfy the Federal Regulations.* These companies have been incorrectly counted as part of the 500 companies. In addition, we must comment on the last paragraph on page 4 of Mr. Fortuna's testimony. He indicates that a new insurance company, the Hypercept Insurance Pool, has recently entered the market. Mr. Hyner of Whyco Chromium has attended numerous meetings regarding the Hypercept product and consistently informed the Subcommittee that the policy is not yet available.

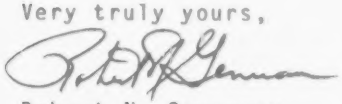
4. In addition to the highly questionable certifications based on the AIG policy, our review of policies purportedly available which may have served as the basis for certification, confirms that those policies do not comply with the specific federal regulations. Any resulting certification was and is, therefore, faulty and interim status has been lost.

As is apparent from this summary, the 521 count is so fraught with problems that it cannot provide meaningful guidance to the Subcommittee.

It is for all of the reasons outlined in our testimony that we ask you to move rapidly in passing HR 3917 and assure you that we will not be back to request further extensions on November 8, 1986.

In closing, I wish to reiterate that Stanley Plating strongly supports effective regulation of hazardous waste management. Consistent with this philosophy, we would support an extension of interim status only for companies which made a good faith effort to acquire the insurance. We do not want to see companies that failed to install groundwater monitoring or to provide financial assurances rewarded for their recalcitrance.

Very truly yours,



Robert N. Genereau
President, Stanley Plating Co., Inc.

*See Schedule D.

[Editor's note: Schedule D, entitled "RCRA's Insurance Requirements" appears as part of Mr. Genereau's written statement and therefor is not reproduced here.]

SCHEDULE "A"

PARTIAL LIST OF PERSONS AND ENTITIES CONTACTED:

A. Primary Companies

1. Aetna Insurance Company
2. Hartford Insurance Group
3. Travelers Insurance Company
4. PLIA and ISO companies
5. AIG companies
6. Home Insurance
7. American Mutual Liability Insurance
8. National Union Fire Insurance Company

B. Brokers and Agents

1. Abrahms Agency (West Hartford, CT)
2. The Graham Company (Philadelphia, PA)
3. Alexander & Alexander
4. Shand Morahan & Co.
5. Stewart Smith Mid America, Inc.

C. Trade Associations & Others

1. National Association of Metal Finishers
2. Connecticut Business & Industry Association
3. Connecticut Association of Metal Finishers
4. American Electroplating Association
5. Corporate Counsel
6. Corporate Accountant
7. United States Environmental Protection Agency
8. Connecticut Department of Environmental Protection

SCHEDULE "B-1"

CHRONOLOGY OF STANLEY PLATING CO., INC.'s ("STANLEY") ATTEMPTS TO OBTAIN ENVIRONMENTAL LIABILITY INSURANCE

1. September 1984 - Request Abrahms Agency secure product to satisfy insurance needs for environmental liability per RCRA.

2. December 7, 1984 - Discussion with Abrahms re: brochure received from Graham.

3. December 11, 1984 - Abrahms contacted Graham.

4. December 13, 1984 - Graham forwards application. Insurance underwritten by Home Insurance Co. (HIC). [HIC withdraws from market - see 2/13/85]

5. December 14, 1984 - Abrahms explores other markets and identifies Shand Morahan & Co. (SMC).

6. December 1984 - Abrahms contacts Hartford Insurance Group (HIG). HIG indicates reluctance to enter the market.

7. January 17, 1985 - Completed application forwarded to Graham.

8. January 17, 1985 - SMC discontinues environmental coverage.

9. February 13, 1985 - Graham advises that HIC changed program necessitating exploration of American International Group (AIG).

10. March 15, 1985 - Metal Finishers Association discusses insurance needs and available policies with Alexander & Alexander and HIG. Neither have product.

11. April 12, 1985 - EPA enforcement policy for companies showing good faith.

12. April 23, 1985 - Graham advises that Metal Finishers

Association approves AIG.

13. May - June, 1985 - Several calls to obtain Graham/AIG quote.

14. June 26, 1985 - Telephone quote from Graham; Stanley requests copy of policy.

15. July 3, 1985 - Formal proposal from Graham received.

16. July 1985 - Abrahms reconfirms that HIG is not available.

17. August 12, 1985 - Letter from Graham indicating quote open for ten (10) days. [Graham has not yet supplied policy].

18. August 20, 1985 - Letter from Graham enclosing policy.

19. August/September 1985 - Counsel reviews, researches and evaluates AIG policy.

20. September 5, 1985 - Letter to Graham re: AIG policy from National Union Fire Insurance Co. of Pittsburg.

21. October 1, 1985 - Letter from Graham (received 10/5) re: AIG policy provisions.

22. October 15, 1985 - Letter to Graham requesting clarifications/amendments to AIG policy.

23. October 22, 1985 - Letter from Graham stating AIG policy will not be altered.

24. September/October 1985 - Contact U.S. EPA and receive oral confirmation that AIG policy is deficient.

25. October 24, 1985 - Letter to U.S. EPA Region I requesting comments on AIG policy.

26. November 8, 1985 - RCRA deadline.

    Stanley submits:
    (1) Groundwater Certification
    (2) Financial Assurance Certification
    (3) Part B Application; Stanley enters a Consent Order to close its surface impoundments on an accelerated schedule.

27. U.S. EPA sends mailgram.

28. Counsel for Stanley meets with U.S. EPA Region I Administrator, RCRA Enforcement head and Regional Counsel. Counsel is informed that: EPA has no ability to fashion equitable administrative remedy to deadlines in RCRA, the AIG policy appears to be deficient, and written confirmation will follow.

29. January 9, 1986 - American Mutual Insurance Co. contacted (AMIC).

30. January 25, 1986 - AMIC specimen and application received, reviewed and found deficient.

31. January 28, 1986 - U.S. EPA indicates that no written analysis of AIG policy will be supplied.

32. February 1986 - Reconfirmation of no availability from Travelers Insurance Co., Shand Morahan & Co., Stewart Smith Mid America, Inc., Home Insurance Co. and Aetna.

SCHEDULE "B-2"

CHRONOLOGY OF PLAINVILLE ELECTROPLATING COMPANY'S ("PLAINVILLE") ATTEMPTS TO OBTAIN ENVIRONMENTAL INSURANCE

1. October 1984 - Discussion between Plainville and insurance broker (Abrahms) re: insurance needs in light of RCRA amendments.

2. October 17, 1984 - Plainville letter to Abrahms re: coverage needs.

3. December 13, 1984 - Plainville contacted Abrahms re: brochure from Graham Co.

4. December 1984 - Abrahms contacted Graham Co. re: policy of Home Insurance Co. (HIC) [HIC withdrew product].

5. December 1984 - Abrahms explored other markets and found Shand Morahana & Co. (SMC) [SMC discontinued product - 1/17/85].

6. January 1985 - Abrahms contacted Hartford Insurance Group (HIG) which indicated reluctance to write policy.

7. January 17, 1985 - SMC discontinues environmental insurance.

8. February 14, 1985 - Completed application forwarded to Graham.

9. February 16 or 17, 1985 - Letter received (dated 2/13) from Graham stating that HIC had changed policy necessitating need to go with American International Group (AIG).

10. March 15, 1985 - Metal Finishers Association (MFA) discusses insurance needs and available policies with Alexander & Alexander and HIG. Neither have product.

11. April 12, 1985 - EPA Enforcement Policy Issued.

12. April 23, 1985 - Graham advised that MFA approves AIG's

proposal.

13. June 27, 1985 - Graham provides Abrahms quote on AIG.

14. July 3, 1985 - Graham forwards formal proposal.

15. July 1985 - Abrahms reconfirms that HIG is not available.

16. July/August 1985 - Attorneys reviewing/researching/ contacting agencies, re: AIG offering.

17. August 29, 1985 - Abrahms confirms noted deficiencies in Graham offering.

18. September 5, 1985 - Counsel for Plainville responds with concerns to Graham.

19. October 5, 1985 - Graham response received (dated 10/1).

20. October 15, 1985 - Counsel for Plainville requests clarifications and amendments from Graham.

21. October 22, 1985 - Graham letter responds that AIG shall not alter or change its policy.

22. October 1985 - Contact U.S. EPA and receive oral confirmation that AIG policy is deficient.

23. October 24, 1985 - Letter to EPA Region I requesting comments on AIG policy.

24. November 8, 1985 - RCRA deadline. Plainville submits:

(1) Groundwater Certification
(2) Financial Assurance (Letters of Credit) Certification
(3) Part B Application; and Plainville enters a consent order to close its surface impoundments on an accelerated schedule.

25. December 1985 - U.S. EPA sends mailgram.

26. December 1985 - Counsel for Plainville meets with U.S. EPA Region I Administrator, RCRA Enforcement head and Regional Counsel. Counsel is informed that: EPA has no ability to fashion equitable administrative remedy to adjust deadlines in RCRA and the AIG policy is deficient and written confirmation will follow.

27. January 9, 1986 - American Mutual Insurance Co. contacted (AMIC).

28. January 25, 1986 - AMIC specimen and application received, reviewed and found deficient.

29. January 28, 1986 - U.S. EPA indicates that no written analysis of AIG policy will be supplied.

30. February 1986 - Reconfirmation of no availability from Travelers Insurance Co., Shand Morahan & Co., Stewart Smith Mid America, Inc., Home Insurance Co., and Aetna.

	THE HARTFORD INSURANCE GROUP	TRAVELERS INSURANCE CO.	SHAND, MOROHON & CO.	STEWART SMITH MID AMERICA, INC.	HOME INS CO.
Are you writing EIL? If no, who does?	No Response	Yes AIG	No AIG	No AIG	No AIG
If yes, 1. Does your policy meet all RCRA requirements		No 500,000 to 2,000,000	N/A	N/A	N/A
2. How soon can we get a sample policy		N/A	N/A	N/A	N/A
3. Was this coverage offered as of 11-8-85		Yes	No, out of EIL 1/85	N/A	No Last 11/84
Do you offer sudden & accidental EIL If no, who does?		Yes AIG	No AIG	N/A AIG	No AIG
If yes 1. Does your policy meet all RCRA requirements		No coverage for EIL not large enough	N/A	N/A	N/A
2. Can we get a copy of the policy		N/A	N/A	N/A	N/A
3. Is the coverage offered now		Yes	N/A	N/A	N/A
4. Do you have to buy EIL to get sudden & accidental		Yes	N/A	N/A	N/A
To Whom Offered		Special accounts with minimum exposure - no offsite dump.	No one	No one	no one

STATEMENT
OF
WILLIAM R. BOAKES
Vice President, Development & Engineering
Sikes Corporation
Lakeland, Florida

Before the
Subcommittee on Environmental Pollution
of the
Committee on Environment and Public Works
United States Senate
on
Consideration
of
H.R. 3917

February 24, 1986

Mr. Chairman and members of the Subcommittee, my name is Bill Boakes, I am Vice-President of Development and Engineering for Sikes Corporation. Thank you very much for the opportunity to testify before you today on an issue of vital concern to our company.

Sikes Corporation, through its Florida Tile Division, is among the three largest domestic manufacturers of ceramic wall and floor tile in the United States. We believe that we produce the best products of their kind at our operating facilities in Lakeland, Florida, Lawrenceberg, Kentucky, and Shannon, Georgia (Atch. A).

[Editor's note: With the exception of Attachment F, all attachments referred to throughout this statement have been retained in committee files.]

In our production processes in Florida and in Kentucky, ceramic tile is covered with a thin coating of glaze to give it the desired smooth, glossy finish. This glaze material contains small amounts of lead similar to that contained in leaded crystal. A relatively high volume of glaze waste material is generated by washing and rinsing our process equipment. For many years we have deposited this waste in surface impoundments located on our property. The glaze waste generated at our Florida and Kentucky operations contains a sufficient concentration of lead to be considered a "hazardous waste" under Environmental Protection Agency (EPA) regulations implementing the federal Resource Conservation and Recovery Act (RCRA).

Therefore, in 1981, Sikes Corporation began its efforts to bring its facilities into compliance with the RCRA regulations. In the early stages, this was difficult because the EPA regulatory requirements are extensive and complex. After a lot of hard work, and the commitment of extensive resources, I am able to report that we believe Florida Tile's operations are in full compliance with all major federal RCRA regulatory requirements (Atch. B) - with all requirements, that is, except for the liability insurance coverage requirement that is the subject of this hearing.

Sikes Corporation is an important part of the domestic ceramic tile manufacturing industry, but it is not a large company; nor is it a subsidiary of a diversified conglomerate (Atch. C). Therefore, Sikes was not able to use the "financial test" provided in the EPA regulations to satisfy the liability insurance requirements (Atch. D). We were required to obtain liability insurance coverage, including nonsudden liability coverage in the amount of $5 million per incident and $10 million on an annual aggregate basis. This coverage amount is higher than the minimum federal amount of $3 million/$6 million, because the State of Kentucky imposed more stringent liability insurance requirements on facilities located there.

In response to the regulatory requirements, Sikes Corporation sought and obtained the required nonsudden liability insurance coverage from Great American Surplus Lines Insurance Company (Atch. E).

The policy in question had a stated expiration date of June 3, 1985. Sikes Corporation, however, was aware of the developing liability insurance "crisis" in the United States, and we began our efforts to assure a continuation of this coverage early in 1985.

We were advised in April, 1985, that the nonsudden liability insurance coverage that we had in place would not

be renewed. Great American was simply no longer offering this type of coverage. We then began extensive efforts independently and through our insurance broker, Arthur J. Gallagher & Company, to purchase nonsudden liablity insurance to avoid any break in coverage. Despite our continuing best efforts and despite the fact that we have had applications pending with three insurance companies for several months, we have as yet been unable to obtain this coverage (Atch. F). We are not at all confident that it will be available to us within any reasonable length of time.

The 1984 Amendments to RCRA required that companies engaged in the land disposal of hazardous waste certify compliance with ground water monitoring requirements and financial responsibility requirements (including nonsudden liability insurance coverage) by November 8, 1985. Failing this, they would lose their "interim status." In other words, they would lose the right to continue disposal operations.

Sikes Corporation certified compliance with ground water monitoring requirements and with all of the applicable financial responsibility requirements except for nonsudden liability insurance coverage. For the reasons given previously, we could not make this certification.

Sikes Corporation, therefore, finds itself in the very uncomfortable position of continuing its production - including the generation and management of glaze waste - arguably in violation of federal law. The company simply has no other option short of closing down its operations in Florida, in Kentucky and, ultimately, in Georgia. There are no reasonably available alternative disposal techniques in light of the volume of materials generated at our facilities. We generate 54,770 gallons of glaze waste per day at our Kentucky facility. Temporary on-site storage is not feasible. The estimated costs for off-site disposal range from $22,000 to $73,000 per day (Atch. G). Our company simply can not afford this level of increased costs. Sikes Corporation's net income before taxes is only about $21,000 per day.

Ultimately, Sikes Corporation wants to get out of the "hazardous waste generation business." Indeed, hazardous waste minimization became a prime objective of the company. When we built our Shannon, Georgia facility in 1981, we had the luxury of designing a manufacturing process that would not generate hazardous waste. Therefore, our Georgia facility is not subject to RCRA requirements. (It will be indirectly impacted, however, if our other facili-

ties are forced to shut down because the product made in Georgia cannot be successfully sold on its own.)

It is much easier to design a new facility to avoid environmental concerns than it is to retrofit an existing operation. Sikes Corporation, however, has made great strides toward developing a glaze waste recycle process at the Florida facility. This process is the result of many months of research and development activity (Atch. H) and the expenditure of one-half million dollars.

I am pleased to report to you that our Florida recycle facility is now operational. Although we were forced to dispose of some glaze waste material periodically after November 8, 1985, during this shake down of the recycle system, we are confident that even this periodic disposal will be unnecessary very soon.

Having successfully designed a recycle system for our Florida facility, we have initiated a similar program to stop the generation and disposal of glaze waste in Kentucky. We expect to have this system in place and operational by November, 1986, which should coincide with the extension of the county sewer line to the property boundary of our Kentucky plant. (The availability of this sewer line is a vitally important aspect of our ability to implement a total glaze waste recycle system.) Until the Kentucky recycle

operation has been designed, constructed, and tested, we must necessarily continue to use our impoundments there.

As I have mentioned before, Sikes Corporation is very concerned with the fact that it must continue to operate its surface impoundments beyond the November 8, 1985 deadline. However, we do not believe that Congress had Sikes Corporation - or companies like it - in mind when it enacted the deadline; nor do we think that Congress intended to impose a financial responsibility requirement that was impossible to meet.

- Sikes Corporation at one time had nonsudden liability insurance coverage in place but, despite its best efforts, and through no fault of its own, was unable to obtain renewal coverage.

- Sikes Corporation was in compliance with all other applicable RCRA regulatory provisions, including ground water monitoring requirements and the remaining financial responsibility requirements, as of November 8, 1985.

- Because of the nature and volume of the glaze waste involved in Sikes Corporation's production processes, the company has no reasonable alternative storage or disposal methods available to it.

Sikes Corporation wants to get out of the hazardous waste business as soon as possible. To get out of the hazardous waste business, however, we must be allowed to stay in the ceramic tile business. We ask the support of this Subcommittee in enactment of H.R. 3917 so that Sikes Corporation can have an adequate opportunity to implement its total recyle program without going out of business or facing enforcement action.

Thank you very much.

ATTACHMENTS

ATTACHMENT A	-	Product Catalog
ATTACHMENT B	-	Current Inspection Reports
ATTACHMENT C	-	Quarterly Report to Stockholders
ATTACHMENT D	-	Letter Concerning Financial Test
ATTACHMENT E	-	Insurance Documents
ATTACHMENT F	-	Chronology of Efforts to Obtain Insurance Coverage
ATTACHMENT G	-	Cost Estimates for Off-Site Disposal
ATTACHMENT H	-	Chronology of Recycle Research & Development

ATTACHMENT F

CHRONOLOGY OF EFFORTS TO OBTAIN INSURANCE COVERAGE

The undersigned is Treasurer-Controller of Sikes Corporation and has the responsibility for managing the company's insurance program. The following is a chronology of our efforts to obtain nonsudden liability coverage as required under the Resource Conservation & Recovery Act.

4/15/85	Received a copy from Stewart Smith Mid-America, Inc. (agent for Great American Surplus Lines Insurance Company) providing "Precautionary Notice of Non-Renewal." The letter indicates the company "may be in a position to negotiate renewal terms. . . ." (Exhibit 1).
4/15/85 (approx.)	Called Alexander & Alexander (insurance broker) to request their assistance in obtaining nonsudden liability insurance coverage should Great American not renew.
4/15/85	Called A. J. Gallagher & Company (insurance broker) also to ask their assistance in seeking coverage.
4/23/85	Received Notice of Cancellation or Nonrenewal from Great American effective as of June 3, 1985 (Exhibit 2).
4/29/85	Received correspondence from Alexander & Alexander noting the restricted market availability for nonsudden liability insurance (EIL) coverage (Exhibit 3).
5/1/85 (approx.)	Called Liberty Mutual Insurance Company [then a member of Pollution Liability Insurance Association (PLIA), but now withdrawn from that group] to inquire as to the availability of coverage.

[Exhibits appended to this attachment have been retained in committee files.]

5/22/85	Filed an application for nonsudden liability insurance coverage with Liberty Mutual (Exhibit 4).
6/10/85	Submitted additional information to Liberty Mutual (Exhibit 5).
6/11/85	Submitted an application for filing with Swett & Crawford (acting as representative of St. Paul Surplus Lines Insurance Company) (Exhibit 6).
8/20/85	Filed application on behalf of Sikes Corporation by Arthur J. Gallagher & Company with American International Group (AIG) (Exhibit 7).
8/21/85	Received notification that St. Paul could not quote premiums until treaties were signed (Exhibit 8).
8/26/85	Advised by Arthur J. Gallagher & Company that efforts to obtain coverage from Hartford Specialty Lines Department were unsuccessful because the company stopped writing coverage (Exhibit 9).
8/29/85	Received correspondence from Liberty Mutual indicating that delay in acting on our application resulted from overwhelming demands for coverage (Exhibit 10).
9/27/85	Received request for additional information from St. Paul (Exhibit 11).
10/8/85	Responded to St. Paul request (Exhibit 12).
11/8/85	Received further additional information request from St. Paul (Exhibit 13).
11/27/85	Submitted response to St. Paul information request (Exhibit 14).

12/17/85	Received letter from Arthur J. Gallagher & Company explaining delay in action on applications based upon extreme backlog (Exhibit 15).
12/19/85	Received information request received from AIG (Exhibit 16).
12/31/85	Submitted environmental impact studies prepared for Sikes Corporation to AIG (Exhibit 17).
2/7/86	Received notice from Swett & Crawford that St. Paul has terminated its environmental protection liability program and that pending applications should be considered "dead" (Exhibit 18).

Tom Williams
Treasurer-Controller
Sikes Corporation

Sikes

SIKES CORPORATION □ P. O. BOX 447 □ LAKELAND, FLORIDA 33802 □ (813) 687-7171

March 7, 1986

The Honorable John H. Chafee
Chairman
Senate Subcommittee on
Environmental Pollution
SH-408 Hart Senate Office Building
Washington, D.C. 20510

RE: H.R. 3917 - Unavailability of Hazardous Waste Liability Insurance Coverage

Dear Senator Chafee:

This letter supplements the written and oral testimony presented to the Subcommittee on Environmental Pollution of the Senate Committee on Environment and Public Works by Mr. William R. Boakes of Sikes Corporation on February 24, 1986. We are responding to the Subcommittee's request that we address some of the issues raised by representatives of two trade associations representing the commercial interests of companies engaged in the business of treatment or disposal of hazardous waste.

As you know, Sikes Corporation is seeking support in the enactment of H.R. 3917 or similar legislation to avoid having to shut down our facilities (or face enforcement action) because we were unable to obtain nonsudden liability insurance coverage. This insurance coverage is simply not available because of the current insurance "crisis" facing the nation.

As Mr. Boakes stated in his presentation:

- Sikes Corporation at one time had nonsudden liability insurance coverage in place, but, despite its best efforts, and through no fault of its own, was unable to obtain renewal coverage. The insurance carrier which provided the needed coverage discontinued offering any such coverage.

- Upon first notice of non-renewal in April, 1985, Sikes Corporation

immediately sought to obtain replacement insurance. It has continued to make every effort to obtain coverage.

- Sikes Corporation was in compliance with all other applicable RCRA regulatory provisions, including ground water monitoring requirements and the remaining financial responsibility requirements as of November 8, 1985.

- Because of the nature and volume of the glaze waste involved in Sikes Corporation's production processes, the company has no reasonable alternative storage or disposal methods available to it.

The waste treatment and disposal trade association representatives argued against H.R. 3917 for three primary reasons. They stated that the legislation would be "unfair" to competitors who had met the insurance requirement; they stated that alternative waste disposal methods were available, and they stated that corrective legislation would send the "wrong message" to the regulated community. There is absolutely no merit to any of these assertions.

Competition Argument

The trade association representatives asserted that approximately 500 companies totally complied with the law and, therefore, it would be unfair to provide relief to Sikes Corporation and other similarly situated companies. It is generally accepted that the majority of the 500 companies who were able to certify fully as of November 8, 1985, met the liability requirements through self-insurance not through commercial liability insurance coverage. In other words, these companies were so large that they were able to meet the financial test provided in the United States Environmental Protection Agency (EPA) regulations to guarantee the three million/six million nonsudden liability coverage requirements.

The assertions concerning compliance status were apparently based upon a listing prepared by EPA in January, 1986. While time did not allow for detailed confirmation of the certification status of each of these 500 companies, Florida Tile did carry out a "spot check" at EPA-Region IV in Atlanta. Our investigation and discussions with EPA representatives in that Region revealed that 75 companies had been listed as being in full compliance. Thirty-eight

of these companies met the nonsudden liability insurance requirements by compliance with the self-insurance financial test procedure. Nine of the facilities were exempt federal installations. Six of the facilities have now been determined not to have been in compliance in the first place. Thus, only twenty-two (29%) of the companies apparently had nonsudden liability insurance coverage as of November 8, 1985. (At least three of these companies have subsequently had their insurance coverage cancelled.)

With specific regard to competitors in the ceramic tile manufacturing industry, according to EPA records only three of Sikes Corporation's primary domestic competitors were subject to the insurance requirements. We are advised that one company is self-insured. One company has been unable to certify compliance with the financial test because of unavailability of liability insurance. One company was apparently insured by St. Paul Insurance Company. (This insurance company is no longer writing nonsudden coverage. See Statement of William R. Boakes, Sikes Corporation, Attachment F, Exhibit 18.)

It should also be noted that many of Sikes' competitors are foreign manufacturers. 62% of ceramic tile sold in the United States in 1985 came from foreign competition sources, especially from Italy. To say the least, these foreign competitors are not constrained by stringent environmental protection laws, much less liability insurance requirements.

In short, the "competition" argument is absurd. Most of the companies that complied with the liability requirements did so by filing an auditor's letter and a copy of their financial statement. They incurred no expense whatsoever. Under the current situation, however, they are allowed to continue in operation simply because they are much larger than Sikes Corporation.

Alternative Treatment Argument

One of the trade association representatives glibly asserted that some sort of alternative treatment and disposal would have been available so that Sikes Corporation could have discontinued use of its impoundment systems in Kentucky as of November 8, 1985. Sikes Corporation has exhaustively evaluated alternatives to its current procedures. As Mr. Boakes testified, however, we will not be able to implement the most viable alternative (total recycle of the glaze waste material) until November, 1986.

We were certainly aware of the provisions of the 1984 Amendments to RCRA. One important provision of those amendments imposed the surface impoundment retrofit requirement effective as of November, 1988. In response to this requirement, Florida Tile began immediately to plan to discontinue the use of surface impoundments by November, 1987 - one year in advance of the statutory deadline.

At that time, we had the necessary nonsudden liability insurance coverage in place. It was not until April 15, 1985, that we became aware of the possibility that this coverage would not be renewed. In addition to pursuing replacement coverage, we doubled and redoubled our efforts to expedite implementation of our recycle procedure. However, it was simply impossible to implement this procedure totally in both our Lakeland, Florida facility and our Kentucky facility within the six-month period between April and November, 1985.

As Mr. Boakes, stated, we have no current alternative other than to use the surface impoundment facility at our Kentucky operation until November of this year. Contrary to the general undocumented claims of the trade association representatives, Sikes has carefully documented the estimated daily cost of alternative treatment and disposal and has shown that these costs exceed the pre-tax net income of Sikes Corporation.

We challenge the commercial waste disposal industry to provide specific information as to a technically and economically feasible alternative disposal and treatment procedure for the glaze waste generated at our Kentucky facility.

The "Wrong Message" Argument

Once again, the self-serving comments of the trade association simply missed the point. H.R. 3917 does not (and Sikes Corporation would not) endorse a wholesale reversal of the policies set forth in the 1984 Amendments to RCRA. The legislation does provide a mid-course correction in the face of an unforeseen circumstance, i.e., the unavailability of nonsudden liability insurance coverage for hazardous waste disposal facilities. We do not believe that Congress would have enacted the loss of interim status provisions of the 1984 Amendments in their current form if it had known that liability insurance coverage was not going to be available. The requested legislative action will simply provide limited, temporary relief to a narrow class of companies who otherwise complied with RCRA regulatory

requirements, but were unable, through no fault of their own, to obtain liability insurance coverage.

Indeed, both witnesses representing the commercial waste disposal industry testified on the existence of severe problems in the insurance industry and the need to address these problems. See Statement of Dr. Suellen Pirages, Institute of Chemical Waste Management at 2; Statement of Richard C. Fortuna, Hazardous Waste Treatment Council at 3, 4, & 7. Moreover, Mr. Fortuna specifically recognized that a "very small group of facilities" have legitimate complaints and should be helped. While Mr. Fortuna's suggestion for relief involves an administrative remedy to be implemented by EPA, he clearly endorses a viable remedy and explicitly acknowledges the legitimate claims of some companies, such as Sikes. Sikes is not concerned whether the temporary relief emanates from Congress or EPA. It simply seeks relief. EPA, however, has clearly indicated it will not act absent congressional direction and authority. Thus, Sikes has to look to Congress for a remedy to this problem.

This dilemma has stricken only small and medium-sized companies that cannot meet the assets test to demonstrate their financial responsibility. The "wrong message" for Congress to send at this point would be to ignore the plight of the several companies like Sikes Corporation that have done everything within their power to comply with the law.

Thank you very much for providing us with the opportunity to respond to the comments made by others at the February 24 hearing. We stand ready to work with Subcommittee members and staff to develop legislation that deals narrowly with the liability insurance problem and that will allow Sikes Corporation to remain in business, implement its waste recycle system, and continue to provide jobs to more than 890 employees in three states.

Sincerely,

Kelly A. Norton
President

KAN/
cc: The Honorable Lawton Chiles
The Honorable Paula Hawkins
The Honorable Mack Mattingly
The Honorable Sam Nunn
The Honorable Wendell Ford
The Honorable Mitch McConnell

ICWM
Institute of Chemical Waste Management
1730 Rhode Island Avenue, N.W., Tenth Floor, Washington, D.C. 20036 • 202/659-4613

STATEMENT OF

Dr. Suellen Pirages, Director
Institute of Chemical Waste Management

on

LOSS OF INTERIM STATUS

BEFORE THE

Senate Subcommittee on Environmental Pollution

February 24, 1986

Mr. Chairman and members of the Committee, my name is Suellen Pirages, Director of the Institute of Chemical Waste Management. The Institute is a component of the National Solid Wastes Management Association and was formed in the late 1970s to promote proper management of hazardous waste. Members of ICWM are those commercial firms engaged in all aspects of hazardous waste management: transportation, storage, treatment, incineration and disposal.

I am pleased to have the opportunity to address the Committee on issues concerning loss of interim status. Two points must be stressed about current legislation passed in the House and being considered by this Committee to extend the period allowed for compliance by land disposal operations with financial responsibility requirements:

1. It sends confusing signals to the regulated community, and
2. It does not address the core of the insurance problem facing waste service facilities.

Confusing Signals

In 1984 Congress passed the Hazardous and Solid Waste Amendments that clearly states an intent to redirect hazardous waste management practices. Within that legislation, you mandated that interim status must end and that any facility intending to continue management of these waste must demonstrate financial responsibility.

The ICWM fully supported that mandate in 1984. Our members feel just as strongly today that demonstration of financial responsibility is essential for continued operation of any type of waste service facility. All of the commercial companies wishing to remain in operation did indeed certify for financial responsibility on November 8, 1985.

The Institute is very concerned that because a few generators could not obtain insurance to cover surface impoundment units, Congress is ready to negate the 1984 Amendments. The message of this back-pedalling coming loud and clear to the regulated community is that the 1984 Amendments were a political show and need not be taken seriously. That is not the message we believe you want to send.

Before this Committee takes action to relieve a small "special interest" group please consider the following issues.

1. Three and one-half months have elapsed since the certification date. If these firms are not operating illegally (without certification cessation of waste management activities was required), they must have found other options for managing their wastes.

2. Commercial capacity presently exists that can accommodate the waste management needs of these few firms.

3. Economic disadvantage is not likely for these few companies. Their competitors must comply with the law, which means that

those who are economically disadvantaged are these competitors who have complied with the law who bear the increased management costs of compliance with the law. Instead, any consideration of exemptions for those few who did not certify gives them an unfair economic advantage and fosters inappropriate management activities.

I pose two questions - is it really necessary to "help" those who could not certify for financial responsibility? Are the economic advantages accorded to this small group worth the risk of weakening the 1984 Amendments?

Core of the Insurance Problem

All companies desiring to conduct waste service activities, whether generators or the commercial waste service industry, are in the midst of an insurance crisis. The House bill is a "band aid" effort that does nothing to address the real problem. This Committee should focus its attention on the larger insurance issue.

During previous hearings conducted by this Committee, you were told by a diverse group that the major obstacle for obtaining insurance is the uncertainty in predicting future levels of liability. Court decisions that grant ever higher claims without any consideration of policy limits represent a major problem throughout the nation. It is a problem that is not unique to environmental impairment liability insurance, but covers all aspects of societal activities. Let us stop addressing symptoms. Now is the time to find a cure for the disease. We can and should be concerned for the cost and availability of insurance -our industry certainly is.

In conclusion, I urge this Committee to consider seriously the message you wish to convey to EPA and the regulated community. The Institute hopes that message is a strong commitment to proper treatment of hazardous wastes and to require a demonstration of financial responsibility for all management activities. To maintain that commitment, the loss of interim status mandate of the 1984 Amendments must continue.

Finally, Congress must accept some responsibility for resolving the insurance problem. Our industry is doing its part through our efforts to establish an industry-owned insurance company. But the larger issue of unpredictable liabilities remains. The nation needs the help of Congress. The Institute strongly urges that this Committee begin to address the underlying need to define and manage liabilities and thus revitalize America's liability insurance market.

Thank you for the opportunity to present the views of ICWM. The Institute stands ready to work with this Committee in resolving this major national problem.

HAZARDOUS WASTE TREATMENT COUNCIL

HWTC

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(202) 296-0778

TESTIMONY

RICHARD C. FORTUNA

EXECUTIVE DIRECTOR

HAZARDOUS WASTE TREATMENT COUNCIL

HR 3917 -- LOSS OF INTERIM STATUS UNDER RCRA

SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

FEBRUARY 24, 1986

Mr. Chairman, Members of the Subcommittee, my name is Richard C. Fortuna. I am Executive Director of the Hazardous Waste Treatment Council (HWTC). I appreciate the opportuinity to testify this morning on the treatment industry's response to HR 3917, a bill to establish interim status for land disposal firms that could not demonstrate third-party liability coverage as of November 8, 1985.

BACKGROUND ON THE HWTC

The HWTC is a national association of commercial firms that share a common commitment to the primary use of treatment and recycling trechnology in the management of hazardous wastes, and to the restricted use of land disposal. The Council is the largest organization representing the interests of commercial hazardous waste treatment and management firms. Our 40 member companies operate facilities in 48 states and represent the full spectrum of established and emerging treatment technologies and management methods including incineration and other forms of thermal destruction, reclamation, biological and chemical treatment, fixation, activated carbon treatment, land disposal after proper pretreatment, and remedial site investigation and cleanup.

The Treatment Council was the lead industry group in support of the 1984 Amendments to the Resource Conservation and Recovery Act (RCRA). We believe that these Amendments put this nation at long last on the road to establishing a hazardous waste regulatory program that truly prevents the creation of additional "Superfund" or problem sites. This will be accomplished through a combination of: restrictions and minimum technology requirements on land disposal; the closing of numerous legal regulatory loopholes that have allowed the "legal dumping" of hazardous wastes for many years; and the expedited permitting of treatment technologies, including portable treatment units that can be brought to the site of a cleanup action. On January 15, 1986 we submitted a Rulemaking Petition to the Agency to expedite the establishment of a permit program for portable treatment units, as directed by the 1984 Amendments.

SUMMARY OF ISSUE

The Treatment Council Membership believes that financial assurance for third-party liability is an important requirement of the RCRA regulatory regime, and must be retained. We have viewed this requirement as a vital private sector supplement to EPA's inspection and enforcement effort on the belief that only "good risks" would qualify for coverage. It is now clear, however, that many environmental insurance policies were written,

and the risks distributed across firms that never should have been insured. Policies, as reflected in the premiums charged, frequently failed to distinguish between unrestricted land disposal practices and selective treatment facilities. Hazardous waste facilities have been viewed as so many potatoes in a sack. We all are learning the hard way that this cannot continue, and that future insurance policies must reflect the differential risks represented by various practices.

The third-party liability requirement is most frequently satisfied through insurance policies rather than the financial test contained in the EPA regulations (40 CFR Part 265.147). The financial test requires among other things a tangible net worth of over $10 million dollars, a test which many smaller firms cannot meet. It is this type of coverage, frequently termed environmental imparement liability coverage (EIL), which has been receeding. A variety of other mechanisms remain available to satisfy the other facets of the RCRA financial assurance requirements: closure (for all facilities), and financial assurances to conduct post-closure care at RCRA land disposal facilities where wastes remain at the site subsequent to closure.

Regarding the RCRA loss of interim status requirements, one must ask are there any unintended casualties of the November 8 deadline, or is this simply the scheduled elimination of marginal and uninsurable disposal units as was clearly expected under the RCRA 1984 Amendments? What relief, if any, should the Committee and the Congress grant to less than 50 waste disposal units that apparently have lost interim status solely due to non-compliance with the interim status financial responsibility requirements?

The question at hand is <u>not</u> whether <u>businesses</u> are going to be closed. <u>Rather</u>, the issue is whether out-of-compliance hazardous waste <u>land disposal units</u>, largely comprised of waste pits and lagoons, are going to be "put out of business."

<u>DISCUSSION</u>

The November 8 termination of interim status provision is an important and integral part of the nation's transition to a protective hazardous waste management system. It is a watershed event, but only the first of many. In the upcoming months and years several other significant deadlines will be encountered including the general phase-out of surface impoundment disposal, and the land disposal prohibitions themselves.

It is the Treatment Council's view that the manner in which the Congress responds to the loss of interim status (LOIS) issue will have a greater impact on the proper implementation of these future prohibitions than it will on the relative handfull of facilities affected by LOIS. If a signal is given that the closure of 20 land disposal units due to insurance difficulties can cause the statute to be reopened, then the Congress should be prepared to make the RCRA reauthorization a weekly agenda item.

The following is a summary of salient facts and the Treatment Council's findings regarding the insurance aspects of the LOIS provision:

* The fact that "several hundred" land disposal units have lost interim status is largely an accounting artifact. Most of these units were already scheduled for closure, or were operating but never intended to undergo final permit procedures. Several of our members who "lost" interim status for certain units have confirmed this situation;

* EPA first established the liability insurance requirements for RCRA hazardous waste facilities in January, 1981. Smaller facilities with land disposal units (revenues of less than $5 million annual sales) were given until January 16, 1985 to demonstrate insurance coverage for non-sudden occurrences. All treatment, storage and disposal facilities were required to demonstrate insurance coverage for sudden or accidential occurrences by July 15, 1982;

* According to the most recent Agency data only 50 of the approximately 1500 land disposal units subject to the November 8 deadline will lose interim status solely because they have no liability insurance;

* This insurance problem was caused in part from serious shortfalls in reserves experienced by the reinsurance industry over the last several years in areas unrelated to environmental insurance, notably product liability and medical malpractice, which have reduced the amount of reserves available for environmental coverage or any other coverage where risks are perceived to be uncertain. It also has resulted from court decisions which have construed the so-called "sudden and accidental" coverage of the comprehensive general liability policies much more broadly than was ever intended by the insurers;

* The statute and legislative history clearly contemplated that several land disposal facilities and/or units would lose interim status and be forced to close. These units were viewed as self-selected problem sites, literally waiting to be closed when their permit was called, due to their failure to comply with monitoring and/or financial responsibility requirements that were four years old;

* Several Treatment Council members have had to quickly institute significant modifications to their operations (impoundment closure, tank installation, etc.) or procure alternative insurance coverage in order to comply with the LOIS certification requirements or to close or modify disposal units so as to render LOIS inapplicable to their facilities;

* Several Members have lost their insurance coverage due to the departure of their insurer from the environmental marketplace. All have subsequently found other coverage, self-insured, or closed those units subject to the LOIS provisions;

* The Treatment Council's recent survey of the environmental insurance market reveals that RCRA sudden and non-sudden coverage is difficult, but not impossible to find. The American International Group (AIG) is still writing policies. Several captive insurance arrangements are nearing fruition, although they are awaiting the passage of "Superfund" and its new environmental pollution risk retention group authority;

* A recent EPA draft survey on EIL insurance availability, which appeared in the January 17, 1986 issue of Inside EPA, reveals that 11 of 80 firms surveyed are still writing such coverage for RCRA facilities, although such policies are frequently limited to accounts that carry other coverage with that firm. In addition the survey cautions that all firms are selective in assuming new accounts;

* A new insurance company has recently entered the market, the HYPERCEPT Insurance Pool, based in Pequannock, NJ, which is seeking to provide RCRA insurance coverage to "small to medium sized companies (other than commercial hazardous waste firms) that cannot afford to self-insure." However, their literature clearly states that, "Membership is contingent upon applicants meeting HYPERCEPT standards based upon annual risk assessments and continuous risk management of all environmental exposures. The aggressive loss

prevention and control program is an absolute necessity for revitalization of environmental liability coverage in the extremely tight commercial insurance market existing today." This is as it should be and should have been, where the insurer actively supplements Agency enforcement through independent audits and preventive risk management programs;

* The Council has worked with both House and Senate Committees to amend CERCLA to provide the authority for firms to establish their own insurance groups, known as Risk Retention Groups, for the purpose of offering the necessary laibility coverage on a national basis. In anticipation of these amendments a Risk Retention Group of commercial hazardous waste firms has formed in which several of our Members are participating;

* The site of a facility having difficulty complying with new environmental regulations is not pleasant, but then neither is the specter of an uninsured, leaking disposal pit operating with impunity for nearly four years. In the final analysis it was the clear concern for health and environment that brought this provision into existence, and not the desire to ensure that everyone could comply without modifying their facility or incurring additional cost;

* It is ironic that the members of the wood preserving industry are the ones voicing the loudest concerns, when at the same time several firms within the Treatment Council are receiving inquiries for the first time from facilities that want to close and remediate their on-site creosote pits. Again, this is how we envisioned that the system would and should work--long neglected facilities finally undertaking the necessary corrective actions and on-site modifications;

* EPA and the Justice Department have filed their first lawsuit against a firm that failed to comply with the November 8 notification requirement. The suit against Conservation Chemical Company, which also has enforcement actions pending under CERCLA, is precisely the type of action that is needed to send a proper signal to the rest of the regulated community.

* On August 21, 1985, EPA proposed to offer a variety of modifications of its insurance requirements in response to this very serious problem. (50 Federal Register 33902). Among the options which EPA proposed were (1) allow firms to certify to the use of good faith efforts to continue to obtain environmental coverage, (2) allow the corporate guarantee by a parent corporation who has sufficient assets to satisfy a financial net worth test which is allowed as an alternative to the obtaining of an insurance policy (see 40 CFR 265.147(f) and 264.147(f)), and (3) modify the language of the insurance certificate forms which are required under the regulatory provisions cited above so as to allow EPA greater flexibility in accepting coverage language which insurers are in some cases willing to provide, but which is not identical to the forms mandated by EPA.

CONCLUSION

First and foremost, the loss of interim status issue is a referendum on our resolve to implement the RCRA Amendments in a timely and proper manner.

If after-the-fact pleas by a relative handful of firms, which cannot or will not modify their practices to comply with long established requirements, provides a sufficient basis to reopen this statute even when closures were clearly expected, then every subsequent deadline, prohibition, and restriction will become fair game as well.

To legislatively extend the loss of interim status deadlines would be an even greater insult to those firms that scrambled to comply and spent sizable sums in the process. To extend the deadline would send a signal for firms to hereafter put their money into complaining rather than complying. We urge the Committee to reject HR 3917 in lieu of the limited administrative plan outlined below.

We have a hazardous waste law that finally means business. One which is accomplishing precisely what it set out to do; phase out certain land disposal facilities and practices, and provide certainty for the transition to and investment in permanent and protective technologies. It isn't going to take much equivocation to upset this deliberate but delicate transition.

At the same time, there is a very small group of facilities that likely have legitimate complaints about their fate under the loss of interim status provision (LOIS). This group consists of those firms that meet all four of the following criteria: (1) have lost insurance coverage within the past 12 months due to the total departure of their insurer from the marketplace, not due to a selective cancellation; (2) are too small to self-insure; (3) are in full compliance with all applicable groundwatermonitoring requirements and can demonstrate that there are no releases to groundwater at the site; and (4) have made consistent efforts to find other coverage.

The limited number of facilities that meet these four criteria should be accorded the limited relief described below.

RECOMMENDATIONS

Under no circumstances should the relief for these limited number of facilities involve legislation.

Rather, facilities that meet the four criteria specified above should be accorded a limited administrative remedy. EPA's previous suggestion of using compliance schedules for such a limited universe would have been appropriate prior to the November 8 deadline, but now appears to be unavailable. The relief for such facilities now requires two separate but simultaneous actions:

* first, the Agency would have to issue Interim Status Compliance Letters to facilities that fall into this category to reinstate interim status. This device was used by the Agency in 1980 when Congress first established interim status for facilities that were initially denied interim status, or which failed to notify due to a misunderstanding (November 19, 1980, Federal Register 76630), (see attached letter for additional details); and

* second, the Agency should promulgate a response to its request for comments on financial responsibility requirements (August 23, 1985, Federal Register 33902) in the form of an interim final rule that would authorize a six month waiver for firms that met the four criteria.

In addition, we would recommend that the Agency promulgate regulations that allow for additional third party liability insurance instruments such as the corporate guarantee, which is currently available for satisfying the closure and post-closure financial requirements. EPA has advised us that the only reason they have not allowed it thus far for liability insurance is a concern that allowing a parent to guarantee the liabilities of a subsidiary would constitute the unlawful practice of insurance. We do not believe this is legally sound, and we are not aware of any state which takes this position. EPA has indicated that it is reevaluating its position.

We would also urge the Committee to support the Risk Retention Act Amendments to CERCLA, which provides the most promising short-term solution to the current shortage of EIL coverage.

HAZARDOUS WASTE TREATMENT COUNCIL

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November 18, 1985

Honorable James J. Florio, Chairman
House Subcommittee on Commerce,
Transportation and Tourism
2162 Rayburn House Office Building
Independence Ave. and South Capitol St., S.W.
Washington, D.C. 20515

Honorable Norman F. Lent
Ranking Minority Member
House Subcommittee on Commerce,
Transportation and Tourism
2408 Rayburn House Office Building
Independence Ave. and South Capitol St., S.W.
Washington, D.C. 20515

Re: Loss of Interim Status Under RCRA Because of Unavailability of Environmental Insurance

Dear Congressmen Florio and Lent:

At the conclusion of the hearing before the Subcommittee on Commerce, Transportation and Tourism of the House Committee on Energy and Commerce on November 13, 1985, concerning the financial responsibility requirements for interim status land disposal facilities and the problems which have been created by the unavailability of third-party liability insurance this year, we offered to spell out in greater detail the proposal for administrative relief which we recommended in our testimony. Several members indicated that this would be helpful. Accordingly, this letter does that. We hope that it will provide the basis for a discussion which can lead to a solution of the problem without the need for new legislation.

1. The Problem

The practical problem is that for reasons which in many cases have nothing to do with whether or not a land disposal facility or other hazardous waste facility is being managed in an environmentally sound manner, numerous insurance companies in 1985 stopped

writing environmental coverage for facilities which manage hazardous waste. This was due in part to judicial decisions which have construed the language of some insurance policies much more broadly than was originally intended, and to fears by the insurance industry of virtually unlimited liability under Superfund. It was also due to major losses by the insurance industry and the London reinsurance market in non-environmental areas, such as medical malpractice and product liability, which drastically decreased their reserves across the board. The practical effect was that some companies in interim status had their policies cancelled during 1985 and, despite their best efforts to find coverage elsewhere, they were unable to do so in time to meet the November 8, 1985, certification deadline for land disposal facilities under RCRA Section 3005(e)(2).

This problem affected a number of the member companies of the Hazardous Waste Treatment Council. Some companies were able to use the alternative financial net worth test established in the EPA regulations at 40 C.F.R. §265.147(f), and others were able to obtain insurance because of special arrangements which parent companies were able to make with carriers. Other companies simply closed down their land disposal units and switched to tanks or other management alternatives. While these arrangements and modifications were expensive, all were able to comply with the November 8 deadline requirements.

The legal problem is two-fold. First, those companies which were unable to obtain insurance or make other waste management arrangements, and are too small for the net worth test, were unable to certify by November 8 that they were in full compliance with the financial responsibility requirements and therefore lost interim status. Second, even if interim status is reinstated, these facilities still do not have insurance or otherwise satisfy the third party liability part of the financial responsibility requirements.

2. EPA's August 21 Proposal

The requirement that a land disposal facility maintain environmental impairment liability insurance is not in the statute, but was created and imposed by EPA as part of its financial responsibility requirements. Thus, prior to the November 8, 1985, statutory deadline, EPA had considerable flexibility to modify those requirements or define what would constitute compliance with them for certification purposes. On August 21, 1985, EPA proposed a number of alternative solutions in the Federal Register, invited public comment, and announced its intent to provide some relief

prior to November 8. 50 Fed. Reg. 33902. The range of options included, among other things, maintaining the existing requirements but allowing a facility which is otherwise in compliance with interim status requirements to document and certify to the use of best efforts to obtain the required insurance coverage.

This approach was used by EPA during the pre-November 8, 1985, period for facilities operating in interim status. It had been done not by regulatory amendment, but by an exercise of enforcement discretion embodied in a memorandum from EPA's Assistant Administrators for Solid Waste and Emergency Response, and for Enforcement and Compliance Monitoring, dated April 12, 1985, entitled Enforcement Guidance for a Constrained Insurance Market, a copy of which is attached.

Other ameliorative measures were also proposed by EPA on August 21, including the use of the corporate guarantee, along the lines allowed for demonstrations of financial responsibility for closure and post-closure care under 40 C.F.R. §§265.143(e)(10) and 265.145(e)(11). However, EPA did not promulgate any of these options before November 8, with the result that those firms which were unable to certify compliance with the liability insurance requirement portion of the financial responsibility requirements automatically lost interim status after November 8, 1985, pursuant to Section 3005(e)(2) of RCRA.

When asked at the hearing why EPA had not provided administrative relief, the EPA witnesses indicated that they felt that such relief would have had limited benefit, since it would not have automatically applied to states with authorized programs. Of course, exactly the same point could be made of a legislative solution. Since states are free to adopt more stringent requirements than the federal program, states are not required to relax their programs just because Congress allows it. The few contacts we have had with state agencies indicate, however, that if the Federal Government takes the lead administratively to provide relief, many states will follow, even if that means using prosecutorial discretion on an interim basis until state regulations can be modified.

3. The Solution

The administrative solution which we advocate would allow a facility to be deemed to have interim status if it is in compliance with all interim status requirements except for third-party liability insurance, and could demonstrate and certify to good faith efforts to obtain the required coverage. That

showing would require evidence of meeting four objective criteria listed below. Because this would be based in part upon an exercise of enforcement discretion by EPA, the one and only thing which a post-November 8 regulatory solution could not do, which a legislative solution could do, is to insulate the facility from a citizen's suit on the ground that as a legislative matter the facility had lost interim status on November 8, 1985. For the reasons set forth below, however, we do not regard that as a significant deterrent.

What we recommend specifically is the following two-part solution. First, EPA should promptly promulgate a regulation based on its August 21, 1985, proposal. This rule would identify the requirements which a facility that was unable to meet the November 8 deadline solely because of the financial responsibility requirements must meet in order to be deemed to have interim status. The rule should include a provision which would allow the owner or operator of a land disposal facility which meets the four criteria set forth below to certify that those conditions exist, supported by such evidence as EPA may require. The four criteria are:

1. The owner or operator filed a Part B permit application and certified to compliance with applicable groundwater monitoring requirements on or before November 8, 1985;

2. The facility once had the necessary insurance coverage required by 40 C.F.R. §265.147 but lost it due to a decision by its insurance carrier to no longer make environmental insurance generally available;

3. The company is too small to meet the financial net worth test authorized under 40 C.F.R. §265.147 as an alternative to insurance; and

4. Since losing its coverage, the owner or operator has used, and is continuing to use, its best efforts to find alternative insurance coverage.

Such a rule could also allow for corporate guarantees and other mechanisms to satisfy the financial responsibility requirements.

Second, as part of the promulgated regulatory package, EPA would provide that a facility which complies with the foregoing criteria and certifies to EPA or an authorized state within a prescribed time following promulgation of the regulation (we recommend 30 days) that it is in compliance therewith may be issued an Interim Status Compliance Letter ("ISCL"), which will continue in effect until a permit is issued or until the ISCL is sooner terminated by EPA or an authorized state. The ISCL will state that so long as the certification conditions remain valid and the facility is otherwise operated in compliance with the interim status standards in 40 C.F.R. Part 265, the facility shall be deemed for all regulatory and enforcement purposes to have interim status under RCRA.

The use of the ISCL has a direct precedent in EPA's November 19, 1980, rulemaking regarding interim status and the provisions of Section 3005(e)(2) as they existed prior to the 1984 amendments. 45 Fed. Reg. 76630. EPA found that under its regulations which went into effect on November 19, 1980, a number of facilities failed to file the notification of hazardous waste activity and/or Part A of a permit application through "excusable neglect" or through ambiguities in the regulations. In dealing with such facilities, EPA adopted an ISCL policy based on an exercise of enforcement discretion, which is summarized in the following discussion from the Federal Register at 45 Fed. Reg. 76632:

> Although EPA cannot grant interim status to facilities which failed to file a timely Section 3010 notification, we are prepared to exercise our enforcement discretion to allow such facilities to continue operating after November 19, where their continued operation would be in the public interest. To provide formal assurances to these facilities that they will not be prosecuted for operating without a permit, EPA is considering issuing Interim Status Compliance Letters ("ISCLs") to qualifying facilities stating that the Government will not prosecute them for operating without a permit if they file a permit application and comply with all applicable Part 265 standards. . . .
>
> Although a facility operating under an ISCL or compliance order and complying with EPA's Part 265 regulations would not be immune from citizen suits under Section 7002 of RCRA because it was technically operating without a permit,

> we doubt that such suits would ever be successful. Federal courts sitting in equity are not likely to close down facilities which have failed to submit a timely notification under Section 3010 if they are otherwise fully complying with all applicable substantive environmental standards.

In adopting this policy, EPA noted on the same page of the Federal Register that a similar enforcement policy was successfully used by it under the Clean Water Act to deal with an inflexible statutory deadline for achievement of effluent limitations based upon the best practicable control technology by July 1, 1977. Clean Water Act Section 301(b), 33 U.S.C. §1331(b). When it became apparent that some dischargers would not be able to meet that deadline despite best efforts, EPA began issuing letters and orders stating that the Agency would not prosecute them for failing to meet the July 1, 1977, date if they met an alternative deadline and an accompanying compliance schedule set forth in the letter or order. That letter was known as an Enforcement Compliance Schedule Letter ("ECSL").

A considerable number of ECSLs were issued under the Clean Water Act in the late 1970s, and a substantial number of ISCLs have been issued by EPA under the 1980 RCRA policy quoted above. The full text of the relevant pages from the November 19, 1980, Federal Register are attached hereto.

4. This Solution Is the Best Alternative

At this stage, we believe that any workable administrative solution is preferable to any legislative solution. To try to amend RCRA at this point would be a lengthy, cumbersome, and controversial process. It would invite efforts to amend other portions of RCRA as well. An administrative solution would be expeditious and could, in addition, retain flexibility for future modifications if and when the insurance market improves.

The ECSL and ISCL policies which EPA adopted, as described above, provided needed and effective relief in limited situations where despite objective good faith efforts companies were unable to comply with an inflexible statutory deadline. Issuance of the ECSL or ISCL was based upon the enforcement discretion (sometimes called prosecutorial discretion) which every enforcement agency possesses. Environmental protection was ensured by making certain that the owner or operator of the facility complied with all other applicable environmental requirements.

This approach should be adopted in this case. It will provide a practical solution which will avoid an unintended consequence to a handful of companies which resulted from the combination of a statutory deadline and an insurance market which deteriorated rapidly and unexpectedly after the deadline had been put in place by the 1984 amendments.

Moreover, because this approach is not a waiver or suspension of the financial responsibility requirements, it fully meets the concerns expressed by the EPA witnesses at the November 13 hearing that they want to encourage those who obtained insurance to keep their insurance, and those who do not yet have it to continue to try to get it. Those who have it, must keep it. Those who do not have it must continue to use their best efforts to get it, otherwise risk losing their ISCL and being forced to discontinue their land disposal operations.

We would be pleased to discuss any aspect of this with you or other members of the Subcommittee or staff. In addition, we would be pleased to work with EPA and Justice Department personnel towards an effective and expeditious resolution of this problem along the lines described above.

Respectfully submitted,

HAZARDOUS WASTE TREATMENT COUNCIL

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TESTIMONY OF

LINDA E. GREER

ENVIRONMENTAL DEFENSE FUND

before the

SENATE SUBCOMMITTEE ON

ENVIRONMENTAL POLLUTION

concerning

the

HAZARDOUS WASTE LAND DISPOSAL BAN

and

FINANCIAL RESPONSIBILITY AND INSURANCE

under RCRA

February 24, 1986

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Good afternoon. My name is Linda E. Greer, and I am a scientist with the Toxic Chemicals Program of the Environmental Defense Fund (EDF). EDF is a not-for-profit environmental advocacy group with over 50,000 members nationwide. It has been actively involved in the development of the hazardous waste regulatory program under the Resource Conservation and Recovery Act (RCRA) since its inception. Since the passage of RCRA, EDF has filed hundreds of pages of comments on regulations, filed suit on numerous occasions over weaknesses in the regulations, and has appeared often before the Congress, including this Subcommittee. In addition, EDF worked actively throughout the last legislative session to improve the RCRA law during its reauthorization by Congress. We are very pleased to have the opportunity to testify today and will concentrate our oral statement on the EPA proposed methodology to ban hazardous wastes from land disposal. Our written statements also discuss a variety of RCRA implementation issues, and with your permission, we hereby submit them for the hearing record.

EPA has undertaken the land disposal ban in response to the 1984 amendments to the Resource Conservation and Recovery Act (RCRA). The centerpiece of these amendments, Section 201, directs EPA to review all the hazardous wastes regulated in the RCRA system and to prohibit the land disposal of untreated wastes unless a petitioner can show there will be no migration from the disposal unit for as long as the wastes remain hazardous. Those wastes that will migrate must be treated so that their toxicity and/or mobility is substantially minimized prior to their disposal in the land.

The statutory land disposal ban represents a sweeping change in the nation's hazardous waste management program. It was conceived as a way to

[Note: The attachments referred to throughout this statement have been retained in committee files.]

correct the widespread problems of operating hazardous waste facilities which had been brought to the attention of Congress during RCRA reauthorization. Hearings in both the House and Senate had revealed that nearly all our nation's land disposal facilities were leaking and that even well designed landfills - with state of the art liners, etc. - were not containing their toxic contents. Moreover, Congress had learned that the groundwater monitoring and clean-up requirements of RCRA would not by themselves adequately address contamination from RCRA facilities as the leakage was occurring. Detection of contamination is difficult and corrective remedial action difficult where feasible and almost always extremely expensive. Four years into the RCRA regulatory program and eight years after the passage of RCRA in 1976, EPA's hazardous waste regulatory program had clearly failed. The land disposal ban was developed to redirect the program and correct these widespread problems.

In constructing its land disposal banning initiative, Congress was faced with several difficult problems. First, there was a great deal of scientific uncertainty inherent in predicting the extent of contamination that might be caused by any single landfill; leakage rates and the timing of liner failures were nearly completely unpredictable. Second, the fate of the contamination once it entered the groundwater was very poorly understood. Lastly, the health and environmental impact caused by exposure to a poorly defined mixture of toxics was beyond the state of scientific knowledge. The challenge to Congress was to provide an implementable directive to EPA that would change the status quo in hazardous waste land disposal recognizing a serious inability to precisely predict the extent to which particular wastes would threaten human health and the environment when disposed untreated in the land.

Recognizing the many difficulties in making banning decisions, Congress designed a land disposal ban that would keep EPA from having to do the impossible. The ban simply requires that all hazardous wastes that leak from the disposal units be substantially treated or rendered less mobile. Where uncertainty as to the migration of the waste etc. exists, Congress requires that EPA decide against land disposal -- via a statutory presumption against land disposal and a requirement that EPA prove land disposal safe in order to continue land disposing particular hazardous wastes. EDF enthusiastically endorsed this provision and continues to believe it to be particularly wisely constructed for making land disposal banning decisions in this area of great uncertainty.

The statutory ban directive, that wastes are prohibited from land disposal in untreated form unless a petitioner can demonstrate to a reasonable degree of certainty that there will be no migration of hazardous constituents from the unit for as long as the waste remains hazardous, is quite clear. Unfortunately, despite this clarity, EPA has developed a land disposal ban that bears little resemblance to Congressional intent; it has interpreted the statute to allow migration of hazardous constituents beyond the immediate confines of the disposal unit. Incredibly, this single misinterpretation that the two words "no migration" allowed "some migration" led to a 164-page Federal Register proposal of extraordinary complexity. The misinterpretation has required thousands of work hours and hundreds of thousands of dollars and has taken us precisely to that position that Congress was trying to prevent when it designed its statutory provision -- to an unrealistic, unscientific, and unprotective land disposal ban.

The land disposal ban is based on the same old wishful thinking and optimistic performance assumptions concerning landfills and groundwater cleanup that have been with EPA for years and have kept the RCRA program from being a success since its inception. Expected to put an end to leaking landfills, it has the potential to do little more than sustain the status quo. This is because though heralded as a major innovation to restrict land disposal, the ban is based on a series of unconservative assumptions that will not be protective of human health and the environment. In some areas, in fact, the proposal is actually a step backwards, as it writes off the groundwater 500 feet around the facility for the first time in RCRA history.

A good first example of the kind of thinking that went into the ban is found in EPA's assumptions about the design and performance of land disposal facilities. In this proposal, all operating land disposal facilities are assumed to be cadillac facilities, with two state-of-the-art liners and a leachate collection system. Moreover, the liners don't leak a single drop for the entire operating life of the landfill. If they do, the contamination is immediately detected and flawlessly cleaned up leaving no signs of trouble. As a result, EPA concludes that the ban need not be protective for operating facilities and from that point on it deals with the potential hazards from only closed facilities. Thus, the EPA ban is based only on closed facilities and its prohibitions based on only what would be predicted to leak out of closed facilities. Furthermore, the closed facilities in the EPA proposal are installed with caps which perform nearly flawlessly in perpetuity. Thus, the theoretical facilities upon which the model is based pose little if any hazard to human health and the environment.

It is completely baffling to us how EPA can base its land disposal ban on the assumption that all its facilities are doubled lined, that liners don't leak, and that groundwater cleanup is no problem. In truth, existing landfills have never been required to retrofit liners and thus would presumably not have them. Liquid waste pits, or lagoons, have a number of exemptions to a double liner standard. Worst of all, neither new nor existing waste piles have ever been required to be doubled lined.

Further, it is not appropriate to assume lined facilities will not leak; there is no data to support such a conclusion, it is contrary to existing empirical evidence, and it is contrary to Congressional directives highlighting the uncertainties associated with land disposal. Once the liners leak, it is unlikely that the contamination will be be cleaned up; to date throughout the operating lives of nearly all RCRA facilities, the contamination has not been adequately addressed. In most occasions it has not been addressed at all; surely EPA cannot deny this. Yet, contrary to reality and the findings and objectives of Sections 1002 and 1003 of RCRA, EPA assumes corrective action will cleanse the aquifers of leaking operating facilities. Rather, contaminants are oozing into the groundwater from closed or closing facilities at such great rates that some of the sites have been placed on the National Priority List of the Superfund program.

Even a cursory reality check of numerous other EPA assumptions used in the banning decisionmaking model reveals that they are fatally flawed and lead to an extremely nonconservative analysis that will not protective of human health and the environment. For example, according to EPA, hazardous waste

facilities in 5 of 18 representative climates of the United States should generate 0.0 inches of leachate per year - that is, according to EPA predictions, the design and location of hazardous waste facilities in 28 percent of the United States should not be contaminating the groundwater at all. EDF has researched the status of facilities in the 5 representative climates referenced by EPA, however, and has found that fully 53% of the facilities located there have contaminated the groundwater. (See Attachment 1) Contrary to EPA's theoretical assumptions, these facilities have leaked and the contamination has not been adequately addressed during their operating lives. How can EPA's justify its assumption that facilities in these areas will never contaminate the groundwater when a brief EDF investigation of files shows that many of these facilities have already done so?

Similarly, the EPA proposal assumes that no drinking water wells will ever be placed closer than 500 feet from the facility. This assumption flies in the face of data EPA currently has in its own files which is summarized for the commenters' convenience in the Federal Register proposal. (See Attachment 2.) This data shows that fully 50% of the largest land disposal units in this country have property boundaries closer than 500 feet. That is, drinking water wells can be expected at some time in the future to be found at distances closer than this at half the facilities in this country. Furthermore, there is no need to wait for future population growth facilities to find drinking water wells installed closer than 500 feet; with minimal effort, EDF has uncovered a number of such wells, including those listed in Attachment 3 of this summary. EPA's headquarter data base on facilities applying for final permits shows an additional 18 facilities with drinking water wells within 500 feet of the disposal unit. (See Attachment 4.)

What kind of protection does the EPA proposal provide for facilities with wells closer than 500 feet? To find out, EDF procured the EPA computer model and ran it with varying distances to the well. A summary of our results is shown in Attachment 5; this attachment shows that wells 60 feet (20 meters) from the unit will have nearly 300 times EPA's "safe" level of contamination as those 600 feet away. Such results are bad news for communities near facilities such as the Lenox facility in Pomona, New Jersey, the Clow Water facility in Coshocton, Ohio, and the Mill Service and Brush Wellman facilities in Yukon, and Shoemakersville, Pennsylvania, which, according to EPA files, have wells less than 50 feet from the disposal unit:

A closer look at the Yukon, Pennsylvania facility referenced in EPA's files brings home the consequences of EPA's arbitrary cutoffs on real people's health. EDF recently learned about the Yukon facility through Dr. Devra Davis of the National Research Council Commission on Life Sciences. Dr. Davis has been in touch with the Zorosak family and their physician concerning health problems that the family is having which they attribute to the Mill Service facility. This family has been suffering from exposure to clouds of vapor which emanate from the facility as well as contaminated soil and water. Both adults have elevated levels of metals and organics in their blood and each complain of symptoms which range from retinal hemmorraging to lethargy. Other neighbors also have health complaints, and many attribute unusual deaths in their cattle herds and chicken coops to the facility. The EPA model will not protect the Zorosak family or their neighbors, however, since their problem falls outside of the statistical confines of EPA's model. This example thus shows the real world impact of the proposal EPA is asking us to accept.

The distance assumed between facilities and surface water is also 500 feet. As the Agency states, "The distance of 500 feet was selected to be consistent with the distance employed in the ground water component. However, the Agency is further evaluating the appropriateness of the use of this distance in the surface water component and may revise it if it is determined that it does not accurately reflect a conservative point of interception." (51 FR Jan. 14, 1661) In other words, EPA selected 500 feet because it made it easier to use the model, not because the number makes any sense.

EDF believes that a vast number of surface impoundments can be found much closer than 500 feet from a water body; these impoundments serve factories which are most often located right on rivers. In fact, many of these impoundments have been constructed in order to treat the hazardous wastewater generated by the factory as required under the Clean Water Act. It is thus very likely that if EPA looked, it would find many of its facilities substantially closer than 500 feet to the river. In fact, in its initial survey, EPA found 24% of the facilities were closer than 60 feet from the surface water. Nearly 50% were closer than 500 feet.For this large number of facilities, EPA's proposal falls very far short of protection.

You would think that if EPA were still so unsure about this distance variable, that it must not be important to the outcome of the final surface water model. Quite to the contrary. EPA states elsewhere in the proposal that the distance to surface water is critically important to the results of the model, as it might change levels currently proposed to be protective in the ban. That is, the proposed banning level is sometimes based on what is

predicted to appear at a groundwater well and sometimes on what is predicted to arrive in the surface water, depending on which is more stringent. If EPA's distance to surface water assumption is incorrect, the basis upon which all of its numbers are set will need to be reviewed and perhaps changed.

The distance of 500 feet to the well or surface water is just one of a large number of assumptions EPA is using to provide protection under a reasonable worst-case scenario. As the above discussion shows, the selection of this distance is clearly not worst case; rather, it is protective of only 50% of the facilities in the country. On other assumptions in the model, EPA has decided that it will concern itself with 90% of its facilities. Although the 90% level is clearly an improvement over 50%, it too is utterly arbitrary and, according to our analysis, also not adequate to protect human health and the environment under the reasonable worst case.

EPA never justifies this 90% cutoff as representing worst-case, noting that it was selected "as a matter of policy". What EPA does not show anywhere in the proposal, however, is the impact of this arbitrary policy decision on the protectiveness of the model. As attachment 6 shows, where concern about only 90% of the facilities will lead to prediction of 1 unit of contamination at a well, concern about 99% of the facilities will lead to prediction of 24 times that amount. Concern about all (100%) the units in RCRA will lead to prediction of 163 times the amount of contamination at the well. Thus, this analysis shows that the arbitrary decision to be concerned with only 90% of the units rather than all of them has drastic consequences on the amount of contamination that will be allowed to leak from the unit. Citizens living around dumps in the 90-100th percentile are unlikely to be comforted with the

fact that their dump has a 90% chance of not existing in the EPA model when the consequence of EPA's probability game is that they are facing an increase risk of cancer of nearly 100 times.[1/]

Attachment 7 shows in another graph why there is such a difference between predictions for 90 and 100% of the facilities. This graph shows that no leakage is predicted 90% of the time for the example chemical; it is only 10% of the time that EPA predicts even detectable amounts of contamination at its wells.

Let's look at another assumption of the EPA model that leads to dire consequences on the protectiveness of its proposed approach — the vegetation that will grow on the covers of closed landfills. The EPA model assumes that a grass not previously found to exist in this hemisphere will be flourishing on top of the closed landfills across the entire U.S. This grass, in fact, is assigned a critically important role in the model; it must take up nearly all the rainfall which falls on landfill and thereby minimize or in a number of cases completely eliminate all water that comes in contact with the waste.

The supergrass EPA needs for its proposal has roots that are 3 feet long. As several experts in agricultural sciences have confirmed, there are

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1. Interestingly, EPA never presents data to show that 90% of its actual RCRA facilities fall within the 90% theoretical cutoff level. For example, the model assumes that the range in soil types found around hazardous waste facilities reflects the range found in the country. This is probably not true, especially for disposal lagoons, which were historically sited in sand so as to perform as percolation ponds.

no grasses with roots such as these. Rather, we have learned, a root zone of 3 to 6 inches would be a conservative estimate. EPA documents from other projects state that even "excellent" grass should be presumed to have a root zone of no more than 18 inches. And, although there are other types of plants besides grass with roots longer than 3 feet, these plants are not suitable for landfills covers because their roots are too long and will breach the clay liner below the vegetation cover zone.

To justify an assumption of excellent grass, this supergrass must never dry up and die during the middle of the summer - despite the fact that it will not be watered. As I am sure many of the members of this subcommittee can testify, grass needs to be watered during much of the summer and will often die back without care. In the EPA model, however, the grass on the cap of the facility is supremely drought tolerant and never needs watering to stay healthy.

How important are the length of the roots and other assumptions regarding the grass cap? We are currently doing numerous runs of the model to answer this question. Our preliminary analysis shows, however, that dividing the root length by two will cause allow 6.5 times greater contamination at the well 500 feet away. Clearly, then, this root length is a very sensitive parameter.

One last assumption that I would like to discuss in my critique of the EPA model concerns the chemical and physical nature of the waste which is predicted to drip from the bottom of the facility. EPA assumes that the only substance that will leave the facility under the worst of circumstances is rainwater contaminated with chemicals that has traveled through the

landfill.[2/] It thereby ignores considerable experience it has had both in the RCRA program and in the Superfund program which reveals irrefutably that many chemicals are mobile all on their own, without the need for water to put them into a solution. For example, oil wastes are notorious for migrating in vast plumes below refineries and wood treating plants; the St. Louis Park Superfund site, for example, in Minnesota, as well as Hyde Park in New York have contaminated the groundwater in this way. At these sites and others, any estimate of contamination potential that assumes the waste must dissolve in water drastically reduces the total amount of contamination predicted to occur. This is because, as in this case, oil and water do not mix. But oil itself is a liquid and thus is mobile. Therefore, EPA's reliance on an extraction procedure to predict the nature and extent of the contamination seriously underestimates the potential leakage from a hazardous waste facility.

As the above examples show, EPA is moving forward with a banning methodology based on extremely weak technical assumptions. In some cases, the assumptions border on the ludicrous. Most importantly, as our examples show, the assumptions are not overly protective or conservative, as the Agency contends.

Prudent public policy dictates that all of EPA's assumption be as

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2. That is, the leachate from a new waste extraction procedure, called the TCLP or EP III, is used to predict contamination from these facilities. This new leaching procedure, developed in response in part to a Congressional mandate to improve upon EPA's organic toxicity characteristic, was designed to predict migration from a sanitary landfill and is based on a set of assumptions that is inappropriate for use in the context of the land disposal ban. The TCLP therefore cannot accurately predict waste migration from a hazardous waste landfill.

conservative as possible. However, simply adjusting the assumptions discussed here today and others will not result in a rational or effective land disposal ban. We caution the subcommittee against suggesting to EPA that the problem with its proposed land disposal lies in the fine points. Rather, EPA's whole approach must be abandoned for one that is consistent with Congressional intent. The EPA approach must not unduly rely upon precision in theoretical estimates of the inputs in the equation in order to protect people and the environment from the outputs of actual landfills in the country.

EDF's recommendations for improvements of the EPA model are quite simple. EPA should interpret the language "no migration" to mean "no migration". This will eliminate a need for any groundwater model at all and will thereby take care of all the problems I have discussed as well as those that will be discussed by the other members of this panel.

Hazardous Waste Insurance Requirements

Section 3004(a)(6) of RCRA, as amended, requires EPA to establish financial responsibility standards for owners and operators of hazardous waste management facilities as may be necessary or desirable to protect human health and the environment. These financial responsibility requirements are critically important to the success of the RCRA program for three major reasons. First, and most important to people living around dumpsites, the financial provisions provide compensation assurances. The public is deservably wary of hazardous waste operators who continue in business but cannot afford to pay for any damages they may cause to the health or property of the surrounding residents. Second, the financial provisions provide third party oversight on facility operations. Given the loopholes in the existing EPA regulations, it is important to give facilities meaningful performance reviews. The insurance industry, because they must cover damages caused by these facilities, is in an excellent position to do this review. Third, insurance will provide an early warning to regulating agencies about poor facility performance; notification of the cancellation of insurance will let the agencies know that something is amiss.

In fact, there is widespread support for the need for financial requirements by more than the public living around these sites. For example, when EPA questioned in 1981 whether the financial requirements were necessary or desirable, it received considerable comment from the public, regulated industries, insurance companies, members of Congress, and State agencies in support of them. In fact, particularly significantly for this town, there was virtually unilateral support for the financial requirements at that time.

Central to today's debate, though, is not whether financial requirements are a good idea but whether or not they are causing larger problems than they were designed to solve. In particular, this hearing is being held in response to a general perception that there is a financial crisis with hazardous waste facilities due to a tightening market for insurance. The concerns to date have focussed on the ability of facilities to certify compliance with financial requirements on November 8 of this year. EDF has reviewed much of the information that EPA and Congress has before it and we have reached the conclusion that the reported financial crisis may not, in fact, exist. In spite of what has been reported in the press , there does not appear to be cause for alarm, and there is little to suggest the need for any emergency legislative response. Please refer to Attachment B, a summary done by EPA this fall, while I present the analysis that led us to our conclusion.

* There were 1574 hazardous waste land disposal facilities currently in the RCRA program. Of these 1574 facilities, a majority - 938 - did not need insurance because they are large enough to meet a financial test to meet the financial requirements.

* Only 215 facilities nationwide in fact required insurance (once you subtract out 420 facilities exempted from the requirements for various reasons). Of these, only 113 were known not to have it.

According to the fall EPA data, then, we're down to a potential problem with 113 of 1574, or only 7%, of our RCRA facilities. Hardly a crisis of national proportions. But let's keep looking.

* Of the 113 facilities without insurance, a full 67%, or 76 facilities, have never had insurance. Thus, the majority of our facilities without insurance as of this survey were in fact not at all victims of a new insurance market or a new economic reality. Rather, they appear to be facilities that were not interested in complying with the requirements even when it was relatively easy to do so. Subtracting the perpetual non-compliers from the pack of 113, we are down to only 37 facilities out of 1574 that can claim that the changes in the insurance industry have affected their operations. Moreover, the number of facilities in operation today with a big problem is most likely smaller than 37, since many facilities must be presumed to havve found alternatives for their waste management operation since the November 8th deadline passed 3 months ago.

Even ignoring compliance history, let us look further at the 113 facilities without insurance as of EPA's survey this fall. Were these 113 facilities being kept from disposing their wastes unfairly? Were they the types of facilities that the new RCRA is encouraging or discouraging? Two questions must be answered to determine this response. The first has been addressed by EPA: are these facilities in compliance with other RCRA interim status requirements, especially those for groundwater monitoring? Significantly, the answer is "no" for the vast majority; only 36 of the 113 facilities had adequate well systems at the time of EPA's most recent survey. That is, if our groundwater data is correct, only 36 facilities are having RCRA certification problems due solely to insurance.

Now let us ask an additional important question about these 36 facilities that EPA has not yet asked. Have they contaminated the groundwater? As you know, the RCRA regulations require only that a facility monitor the groundwater. The regs do not require that the facility not contaminate it. Thus, it is common that facilities can be in compliance with groundwater monitoring requirements and still be contaminating the groundwater.

A cross check of the 36 facilities with adequate wells and no insurance with those facilities found to have contaminated the groundwater in the Dingell survey of this spring reveals that fully 61% of the 36 (that is, 22 out of 36) have already contaminated the groundwater. Thus, the reason that these facilities cannot get insurance may be because they are extraordinarily poor risks. They are the equivalent of burning buildings requesting fire insurance; they deserve to be turned down.

In fact, the insurance market may be sending us a message about land disposal facilities that we have heard before in other arenas: land disposal of hazardous waste in these facilities is too risky to be insurable. We know that all land disposal facilities eventually will leak and we know how expensive it can be to clean up after contamination has occurred. Under these circumstances it is not surprising that insurers would deem certain facilities to be so risky as to be uninsurable. Importantly, however, this does not mean that we have a crisis on our hands, for sufficient alternatives exist to handle hazardous waste disposal in ways that will not eventually shift cleanup costs to the public.

Although we have heard threats from the insurance industry that they no longer want to insure hazardous waste facilities, the only hard information we have before us today in fact suggests the contrary. EPA data shows that the insurance companies have been selective about whom they will grant insurance to. As a result, a small number of facilities failed to have insurance on November 8, and many of these facilities appeared to have already contaminated the environment. In addition, EPA noted in its August 21, 1985 Federal Register notice that despite the recent publicity about the lack of insurance, the Pollution Liability Insurance Association has had a recent increase in its sales of Environmental Impairment Liability policies. At this point, EPA has also made available a list of insurance companies that are curretly offering hazardous waste insurance; this list is attached in Appendix 9. Thus, there is little data to support claims about insurance availability to date.

In light of the information available to us at this time, we recommend no legislative changes in RCRA to address the insurance problem. The number of inequitable situations that may have caused closures on friday should instead be carefully examined on a case by case basis, and site-specific remedies and enforcement discretion can be considered by EPA.

However, if Congress decides to legislate a solution, it is important that the legislation have the following elements: 1) The facility should have failed to certify on November 8 solely because of insurance. That is, the facility must have been in compliance with groundwater monitoring requirements on that date. 2) Re-entry to the system should be allowed only for facilities that can demonstrate that they tried to get insurance by November 8 and were

denied this insurance only because of the problems in the market. It is critically important to us that high risk facilities not be allowed back into the RCRA system via this legislative fix. 3) Extension of interim status should be temporary, for example a period of six months. 4) The facility should not be granted re-entry unless it poses no risk to human health and the environment. 5) No re-entry to the system should be allowed for facilities that have been illegally accepting hazardous waste at their facilities in the three months since November 8.

Under absolutely no circumstances should any legislative solution be put forth for facilities that were not in compliance with groundwater monitoring provisions on November 8. There is no excuse for their lack of compliance on this date, as the installation of groundwater monitoring wells is totally under company control.

Modifications we suggest EPA consider for its regulations include its proposed corporate guarantee modification and not the suspension of the requirements for these facilities or the lowering of the required levels of coverage, as acting on these two latter options seriously undermine the benefits that the financial requirements can provide us.

Before closing, I would like to review where we are in the RCRA program today and where we need to be several years from now. Last year at this time, Congress reacted boldly to the problems it saw with our nation's operating hazardous waste dumpsites and strengthened the provisions of RCRA. The strengthening provisions were designed to eliminate bad facilities by causing them to upgrade their design, be better operated, or close. On Friday

November 8 of last year, the first set of significant new directives went into effect. There was a loud cry from some members of the regulated community complaining that they were closing. Many members of the press and Congress forgot that RCRA was meant to close down bad facilities and covered the story as though it was bad news. But I remind you - closing hazardous waste land disposal facilities is not always bad. In fact, it is absolutely necessary to rid RCRA of its poor facilities so that it can improve. In the case we've reviewed today - the impact of November 8 - the impact appears to have been a weeding out of land disposal facilities not willing or able to pay to operate in a sound manner. That is good, not bad.

Times have changed in hazardous waste management, and changing is never easy. But is is change that we clearly require for improvement in hazardous waste. As RCRA's first major milestone is implemented, let us not lose our resolve to make necessary change in how we manage this nation's hazardous waste. And by all means let us not move to solve "problems" where those problems are actually examples of our success.

TESTIMONY OF DOUGLAS MACKAY

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UNIVERSITY OF CALIFORNIA at LOS ANGELES

and

JOHN CHERRY

PROFESSOR, GROUNDWATER RESEARCH INSTITUTE

UNIVERSITY OF WATERLOO

before

U.S. SENATE SUBCOMMITTEE ON

ENVIRONMENTAL POLLUTION

concerning

GROUNDWATER MODELING IN THE PROPOSED EPA

LAND DISPOSAL BAN

FEBRURARY 24, 1986

My name is Douglas Mackay, and I am an Assistant Professor in the Environmental Sciences and Engineering Program of the School of Public Health at UCLA and also a Consulting Assistant Professor in the Department of Civil Engineering at Stanford University. Prior to this I was a Postdoctoral Research Associate in the Civil Engineering Department at Stanford for four and a half years, during which time I managed two multi-investigator research projects on aspects of groundwater contamination and directed two field studies on the transport and transformation of contaminants in groundwater. During one of the Stanford projects, we collaborated with the Groundwater Research Institute at the University of Waterloo. Thus I had the opportunity to work with its Director, Professor John Cherry, for over four years. Professor Cherry is an internationally-renowned hydrogeologist and coauthor of a well-known textbook on groundwater; he and his colleagues at Waterloo are highly regarded for their extensive practical field studies and their accompanying innovative theoretical work. Professor Cherry has authored numerous scientific publications, has worked with EPA as an expert advisor, and has consulted on numerous groundwater problems worldwide.

The testimony I will present today was prepared in collaboration with Professor Cherry, who unfortunately could not attend this hearing because of other commitments. We appreciate the opportunity to comment on the appropriateness of the groundwater modeling approach which EPA has proposed as part of a methodology for determining which hazardous wastes should be banned from land disposal.

We do not believe that the processes that control the transport and fate of contaminants in groundwater are currently well enough understood to justify the use of the proposed generic modeling approach for establishing regulatory criteria to be applied nationwide. We will present some detailed reasons for this position later. At this point, however, we would like to quote from an excellent editorial written by Professor Mary Anderson of the Department of Geology and Geophysics, University of Wisconsin, for the technical journal entitled Ground Water. This editorial was entitled "Ground-Water Modeling - The Emperor has No Clothes." Some important thoughts were expressed therein which remain valid today:

"It is also tempting to consider using models to judge the suitability of proposed waste sites, e.g. hazardous waste sites. A generic data base might be used for this type of modeling because it would be too costly and time-consuming to collect site-specific data for many sites. The rationale is that it will be simpler to input model parameters from a generic data base and allow the model to calculate an array of numbers purportedly representing the concentration of contaminants in ground water at any point in the subsurface. This type of modeling is valid only if it is recognized that models fashioned in this way are merely preliminary screening tools. Models that rely on a generic data base cannot be expected to produce results that are accurate for any specific site. Generic modeling can be a hazardous game when the numbers from a computer output are plotted up in three-dimensional color graphics, it's easy to lose sight of all the assumptions that went into the modeling effort. One tends to forget that 'the Emperor has no clothes.'"

Professor Anderson concluded her editorial by stating "It is the thought process needed when applying a model that should lead to a decision, not necessarily and certainly not exclusively the answers generated by the model itself." It seems to us that the thought processes that occured when developing the EPA's generic modeling approach should have lead to a decision to discard the approach as a basis for setting regulatory criteria.

Our primary concern is that the generic model is not founded on a realistic physical representation of the subsurface in many, if not most, of the regions of the United States. The generic model is limited to "homogeneous, isotropic porous media," which essentially means uniform sand and gravel. The first slide is a map of the United States illustrating the dominant aquifer types across the country; this slide is taken from an article by a USGS scientist (R. C. Heath, "Classification of Ground-Water Systems of the United States," Ground Water, v. 20, n. 4, 1982). Note that the stippled area, which represents sand and gravel aquifers, covers only a relatively small portion of the country. The remainder of the country's groundwater basins are composed of materials that are certainly not homogeneous and isotropic, e.g. fractured sandstones, fractured basalts, and other fractured materials, and solution enlarged openings in carbonate rocks (limestones). Consideration of this slide and other available materials indicates that there are many areas in this country in which EPA's generic model assumption of a sand and gravel aquifer is inappropriate; in these areas, therfore, the model cannot be expected to accurately predict the transport of contaminants in groundwater.

The next slide illustrates a relatively uniform sand which might fit the model's requirements if the sand were uniform over reasonably large vertical and horizontal distances. It is often the case, however, that such sand and gravel deposits are not uniform and contain significant heterogeneities, such as the gravel layer illustrated in the next slide. The reason that such heterogeneities are so important to contaminant transport is illustrated in the next slide which shows that highly permeable layers may lead to more rapid and extensive transport than anticipated. Thus, there may be some difficulties to applying the EPA's generic model to many of sand and gravel aquifers in the United States, which often contain such heterogeneities.

Now let's consider how different the flow patterns of groundwater and contaminants might be in fractured rocks which, as we saw previously, comprise most of the major water-bearing zones in the U.S. The next slide shows a deposit of carbonate-rich shale exposed by a road cut; the deposit is highly fractured. The slide graphically depicts the channelled nature of the groundwater flow in such materials since the ice formed from the seeping groundwater is clearly not uniformly distributed across the exposed face.

Even deposits of granite, which often appear quite impermeable from the surface, can contain significant channels created by fracturing. The next slide is a photograph taken with a sort of periscope lowered down a borehole into a granite deposit. A fracture on the order of an eight of an inch in width is clearly evident. The next slide shows the extensive fracturing observed in an excavation into a limestone aquifer; also evident from the location of the ice is the channeling of the groundwater flow, as before.

The importance of fractured-type materials is illustrated in the next slide which is a conceptual representation of the channeling of flow from a landfill located over a limestone formation whose fractures have been enlarged by dissolution of the rock. One very important consequence of this channeling of groundwater flow is that groundwater velocities in fractured media can often be 10 to 100 times as high as that encountered in relatively uniform porous media. For example, a dye tracer study was performed at a landfill site in Missouri, which was known to overlie fractured limestone; the dye was observed to travel 1500 meters from the landfill to a spring in approximately 6 days. This amounts to a velocity of about one football field a day, or over 91,000 meters per year. One of EPA's own documents points out that the flow rates can even be higher than in the Missouri test: "the rate of movement in limestone caverns, lava tubes and large rock fractures may approach those observed in surface streams" (EPA Center for Environmental Research Information, "Protection of Public Water Supplies from Gound-Water Contamination," EPA/625/4-85/016, September 1985, p.21). Recalling that the EPA generic model limits the groundwater velocity to 9250 meters per year (purportedly to avoid "unrealistic assumptions"), it is clear that the generic model cannot possibly take into account the velocity of contaminants in many fractured aquifers.

Dispersion is one of two features of the EPA generic model that leads to a decrease in the contaminant concentration between the time the waste migrates from the leaking landfill and when it is detected in a drinking water well 500 feet away. Another very important consequence of the channeling of flow in fractured aquifers I have just described is that the contaminant

concentrations may not be dispersed as much as would be expected for the same distance flow in sand, i.e. the concentrations may not decrease as much as in sand. If the modeling approach was somehow modified to include fractured media, it would almost certainly have to greatly reduce the expectations for dispersion effects. Note that we believe this reduction of dispersion expectations is necessary even for sand and gravel aquifers, as discussed below. However, although fractured media are clearly of considerable importance in contaminant transport in parts of the United States, the current understanding of flow through such media is very limited, and the modeling of such media is in its infancy. We do not believe it would be possible to incorporate consideration of such media in the EPA's generic modeling approach, as acknowledged by the Agency itself: "...the model of necessity incorporates a number of assumptions such as uniform, homogeneous, isotropic media that do not represent real world conditions. Although these factors are of importance, the Agency is unable to take them into account in this generic screening procedure."

We believe that, rather than leaving these real and important complexities out of the generic model, the evidence suggests that the generic model itself should be abandoned as a reliable means of establishing criteria for land disposal of hazardous wastes. The most important reason has just been discussed, i.e. that the physical model upon which the entire effort is based is too simplistic.

However, even if the generic model were applied only to the limited areas overlying sand and gravel aquifers, for example as part of the petition process referred to in the land disposal proposal, we would question several

of the assumptions upon which the model is based. Let's take a brief look at several of the most important assumptions.

CHARACTERISTICS OF THE MATERIAL ESCAPING THE LANDFILL: As Ms. Greer has discussed, the generic model assumes that all of the contaminants that escape the landfill are dissolved in water. EPA specifically states that leaks of pure organic phases, such as solvents, oils, etc., are not considered. This may be a very crucial and incorrect assumption if lab packs and other containerized liquid wastes have been disposed in these facilities. Even small volumes of pure organics may have significant impacts.

Many laboratory experiments on the transport of pure organic phases in porous and fracured media have been conducted by Professor Schwille of the Federal Institute for Water Studies in Koblenz, Germany. The next three slides show one experiment in which water is flowing horizontally relatively rapidly from right to left in the lower section of a sand box. When approximately half a gallon of pure organic liquid (tetrachloroethylene, a.k.a. PCE or sometimes PER), mixed with a red dye, is spilled into the middle of the top of the box, it is seen to plunge quite rapidly down to and through the water saturated sand, spreading horizontally on the bottom of the box. The time to travel to the top of the water is about ten minutes, and to the bottom of the box about one hour. The flow of the organic is not noticeably affected by the groundwater flow. However, as the next slide shows in schematic form, some of the organic will dissolve into the groundwater passing by (the dissolved organic is not visible in Schwille's experiments).

These slides show that organic liquids which may be released from landfills do not follow the flow of groundwater but result in the production of plumes of dissolved chemicals (the plumes that can be produced from even small volumes of organic solvents, gallons or less, can be quite large, as illustrated in a later example). Modeling of the transport and effects of such liquids is in the earliest stages of development; essentially no field data are available for validation of models in any case.

GROUNDWATER VELOCITY: The velocity is of importance primarily because it provides time for degradation of some of the contaminants by hydrolysis, which is discussed separately below. It is important to note, however, that in many field studies of sand and gravel aquifers, the estimate of the groundwater velocity could easily be in error by up to a factor of ten, or higher. Such estimates are derived by the same method utilized by the generic model, and thus the question is raised whether the model sufficiently accounts for the range of and uncertainty in groundwater velocities even in sand and gravel aquifers.

DISPERSION: The generic model appears to us to greatly overestimate the degree of dispersion that would be expected to occur in most sand and gravel aquifers, especially the dispersion that would occur in the directions transverse to the groundwater flow (both horizontal and transverse). This is critically important because it is the dispersion in the transverse directions that lead to reductions in leachate concentrations as the groundwater travels to the drinking water well.

Leachate plumes which disperse in the transverse directions should be wide. However, a review of the few thorough studies of plumes published in or submitted to scientific journals indicates that nearly all of them are long and skinny. The most controlled of all the studies reported to date was conducted by myself, Professor Cherry, and our colleagues at Stanford University and the University of Waterloo. The field site for the study is shown in the next slide. A slug of contaminants was injected into the sand aquifer and allowed to move over the course of three years with the natural groundwater flow. The next slide shows plan views of the position and shape of the chloride plume at several times during the study. Note that the dispersion or spreading of the plume in the direction of flow (longitudinal direction) is significant. However, the width of the plume does not increase much at all. The next slide shows a vertical sectional view of the plume at two times; the vertical dispersion is insignificant. This experiment, then, which is one of the most highly controlled and most thoroughly documented to date, does not verify the EPA generic model.

The next slide shows the plan view of the plumes of three different contaminants at one point in time. As expected, the organic plumes are retarded in their movement and also do not experience much lateral spreading. It is important to note that the organic plumes, which are shown to cover an area approximately 30 feet by 90 feet (and about 6 feet thick), were created by the injection of water mixed with only the small amount of pure organic solvent shown in the next figure (considerably less than an ounce). This graphically illustrates the importance of taking into account even small volumes of pure organic liquids that may leak from a landfill, which was discussed earlier.

The dispersion observed in our controlled experiment (which occured in a real aquifer of the type presumably addressed by the generic model) is much smaller than the EPA model would predict. To compare the dispersion observed in the study to the EPA model assumptions, note that the distance traveled is approximately 50 m and that preliminary estimates of dispersivities estimated for the longitudinal, horizontal transverse and vertical transverse directions are approximately 0.4 meters, 0.03 meters, and essentially zero, respectively. For the 50 meter travel distance, the EPA model would have assumed the dispersivities to be approximately 5 meters, 1.7 meters, and 0.125 to 0.5 meters, respectively. The first two would have been in error by factors of approximately 13 and 57; the error on the vertical dispersivity would have been very much larger.

We therefore feel that the EPA model assumptions on dispersion are incorrect. this error leads to a model which very likely underpredicts contaminant concentrations at points downgradient of the source. In particular the dispersion assumed in the transverse directions is likely to be much too high for the majority of cases of interest. This conclusion follows from the long, skinny nature of the leachate plumes alluded to earlier. The next slide illustrates one example of a real contamination plume from work conducted by an interdisciplinary team of scientists from USGS. Note the long and skinny plan view of the plume (as delineated by Boron concentrations), which has resulted from disposal of sewage in infiltration ponds since 1936. The next slide shows the vertical view, indicating again that dispersion in the vertical direction is minimal. The literature contains numerous other examples of long skinny plumes that do not seem to fit EPA's assumptions regarding dispersion and few wide plumes that would fit.

DEGRADATION BY HYDROLYSIS: It is thought that organic contaminants can be transformed within the groundwater environment by both microbiological activity and by abiotic processes (e.g. hydrolysis). If such transformations occur at significant rates they could lead to reductions in the mass and concentration of certain contaminants. However, these transformation may, in some cases, lead to production of daughter products which are equivalently or even more toxic than the parent compound. Significantly, the EPA proposal assumes that transformations invariably lead to nontoxic products. As we will discuss below, this is an inappropriate and nonconservative assumption.

EPA has elected to include only hydrolytic transformation in the generic model; microbiological transformations are excluded because the "Agency's present understanding of these mechanisms does not permit a kinetic representation of these processes within the system modeled." This means that EPA can't estimate how fast the microbial transformations will be in groundwater. This also implies that the EPA is substantially more certain about the rate at which hydrolysis might occur in groundwater. While we agree that rates of biotransformation are essentially impossible to predict in a generic model, we believe that the situation for hydrolysis reactions is not necessarily better.

Note, for example, that published field studies have indicated that organic contaminants (such as benzene, trichloroethylene, etc.) can be biotransformed within certain groundwater environments (P. L. McCarty, Proceedings of the Second International Conference on Ground Water Quality Research, National Center for Ground Water Research, 1985; D. M. Mackay and T.

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M. Vogel, Proceedings of the the Second Annual Conference on Hydrogeology, Alberta Research Council and National Water Well Association, in press). It is known from laboratory studies, furthermore, that some contaminants are biotransformed into others of similar or greater health concern; e.g. trichloroethylene (TCE) may be biotransformed under some conditions to 1,2-dichloroethyelene (1,2-DCE) and subsequently to vinyl chloride (T. M. Vogel and P. L. McCarty, Applied and Environmental Microbiology, v. 49, n. 5, pp. 1080-1083, 1985). There is considerable anecdotal evidence from contaminated sites throughout the country that such biotransformations are occuring (e.g. 1,2-DCE and vinyl chloride are often observed near TCE spills even though they were not used or disposed in the area). Thus, ignoring biodegradation does not necessarily lead to a more conservative model than one which includes this phenomenon. Nevertheless, it is likely that a generic model could not predict rates or products of biotransformations with reasonable certainty (D. M. Mackay and T. M. Vogel, cited above).

The field evidence for hydrolysis in groundwater, on the other hand, is currently very limited. In fact, much of the anecdotal evidence would suggest that many of the abiotic reactions anticipated from lab studies occur in the groundwater environment slowly, if at all. Consider, for example, that there are many plumes of 1,1,1-trichloroethane (TCA) around the country which are quite extensive: the TCA plumes at two sites in Santa Clara ("Silicon") Valley, California, are on the order of 1 to 3 miles long. These plumes have developed and persisted, sometimes for many years, despite the fact that TCA is generally predicted to hydrolyze rather rapidly, perhaps with a half-life in the range 2 to 7 years in groundwaters at neutral pH and 15 degrees Celcius (D. M. Mackay and T. M. Vogel, cited above).

Note that hydrolysis rates at such low temperatures are normally calculated from higher-temperature lab data, which requires the assumption of an activtion energy, usually taken as approximately 100 kcal/mol (W. Mabey and T. Mill, Journal of Physical Chemical Reference Data, v. 7, pp. 383-415, 1978; T.M. Vogel and M. Reinhard, American Chemical Society Annual Meeting, Division of Environmental Chemistry, v. 23, n. 2, pp. 357-358, 1983). In a significant departure, the EPA model assumes the activation energy is only 20 kcal/mol, which may lead to significant overestimation of the hydrolysis rate at the low groundwater temperatures. If the hydrolysis rate is overestimated, the contaminant concentrations will be underestimated.

Note also that in calculations of hydrolysis rate the EPA model does not take into account the possible effects of the minerals present in solution or in the aquifer solids. The reason that this is of concern is that the rates of hydrolysis (and perhaps the products) may be strongly influenced by the presence of minerals. However, incorporation of such effects in the EPA model is not possible at this time because, to date, there are no conclusive studies of abiotic transformations in the presence of mineral solids; EPA-supported research on this important question is just beginning.

Perhaps most importantly, as we mentioned above, there is some controversy regarding the products of abiotic transformations such as hydrolysis. The EPA model assumes the products are nontoxic and therefore ignores their effects. However, in a few cases the abiotic transformation product is known from laboratory studies to be of health concern: e.g. ethylene dibromide (EDB) abiotically transforms to vinyl bromide (T. M. Vogel

and M. Reinhard, cited above). There is now considrable controversy over the abiotic transformation products of 1,1,1-trichloroethane (TCA); both non-toxic acetic acid and more toxic 1,1-dichloroethylene (1,1-DCE) have been reported as products (D. M. Mackay and T. M. Vogel, cited above). In addition, ther is anecdotal evidence for the abiotic transformation of TCA to 1,1-DCE: 1) the two are often found at sites of contamination where only TCA was known to have been used, and 2) in EPA's own survey of organic contaminants in drinking waters withdrawn from supply wells (e.g. J.J. Westrick et al., Journal of the American Water Works Association, v. 76, pp. 52-59, 1984), TCA was found in 67% of the cases in which 1,1 DCE was observed (T. M. Vogel, Stanford University, personal communication, Feb. 1986).

In summary, the current understanding of abiotic reactions, including hydrolysis, in groundwater environments is very rudimentary. There is considerable uncertainty in estimating the both the rate and product(s) of the abiotic transformations. Thus there seems to be no basis for including hydrolysis in the EPA generic model and, indeed, doing so does not constitute a "conservative" approach. If hydrolysis is included in the model, then it would seem that microbiological transformations, about which the quantitative understanding is similarly poor, should also be included. Considering the the uncertainties in quantifying these improtant issues, it does not seem appropriate to use the generic model to back-calculate criteria for land disposal of hazardous materials subject to transformations in groundwater environments.

SUMMARY: We do not believe that the generic model should be used to set criteria for land disposal of hazardous wastes for the many reasons outlined above, the most important of which is that the model is not based on a realistic physical representation of the subsurface environments likely to be traversed by the contaminants in most of the areas of the country. Furthermore, there are numerous other issues which cast additional doubt on the general usefulness of the EPA model; these cannot be addressed in detail herein given all of our time constraints.

Thank you for this opportunity to testify. I will be glad to answer any questions that the Committee may have.

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TESTIMONY OF ELLEN K. SILBERGELD

SENIOR SCIENTIST

before the

SENATE SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

concerning the

EPA'S PROPOSED LAND DISPOSAL BAN REGULATIONS

February 24, 1986

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TESTIMONY ON EPA'S PROPOSED LAND DISPOSAL BAN REGULATIONS

My name is Ellen K. Silbergeld, and I am a senior scientist in the Toxics Program of the Environmental Defense Fund. My training and experience is in toxicology and environmental health. As a member of the EPA's Science Advisory Board, I have long been concerned over the scientific basis for EPA policy. Many issues which have come before your committee and the SAB surface again in this set of proposed regulations. My comments concern the health basis for the land disposal ban and its implementation by the EPA.

The land disposal ban provisions of RCRA represent the most complete conceptualization of prevention in environmental health policy. That is, for the first time, we have recognized that these are hazardous wastes so inherently difficult to manage which have hazards so persistent that they should not be handled by any technology which does not reliably contain them. Land disposal is recognized by all authorities to be a technology which ultimately fails -- it may fail rapidly or slowly, it may fail quickly or after a long delay, but ultimately all land disposal facilities fail to prevent leaching, surface runoff, oil dispersion, and air emissions of hazardous waste. The hazardous wastes selected by Congress in the 1984 RCRA Amendments for expedited consideration are appropriate, in that they are so toxic, so uncontrollable and so persistent that they have left a record of shame at Superfund sites and other land disposal facilities around the country.

Unfortunately, this simple concept of prevention has been abandoned in the proposed implementing regulations published by EPA on January 14, 1986. In place of this philosophy of prevention, EPA has tried to substitute a permissive, unscientific, and ultimately flawed interpretation of Congressional intent. The proposal, instead of hewing to a forthright philosophy of protection, as clearly stated by law, is obsessed with "comparative risk assessments" and the need "to avoid excessive treatment" (1611). With these two false premises as bogeymen, the proposal is doomed to a warped interpretation of the true risks of land disposal and the true need for much more vigorous treatment. It is hardly the case, with our present methods of hazardous waste management, that we are seriously at risk of adopting technologies more risky that uncontrolled land disposal of any and all toxic waste streams, or at risk of approaching overkill in the treatment of such wastes. If other technologies pose an equal or greater risk, then they should also be subject to stringent regulation.

The health bases for these proposed regulations are completely flawed, and represent lapses in science policy which have implications beyond RCRA. They are:

* failure to deal comprehensively with multimedia exposure to hazardous waste
* attempts to devalue and underestimate health risk by flagrantly unacceptable and novel means
*failure to include risks of chronic disease and death other than cancer

No acknowledgement of exposure via contaminated soil is given in the entire document, although this the reason why the EPA spent millions to buy out Times Beach. Contaminated soil has required extensive — and expensive — cleanups at Swissvale in Pittsburgh, PA and near smelters and asbestos tailings in East Helena, MT and Globe, AZ. It is astounding to have to return once again to the US Congress to remind the EPA that people are indeed endangered by contaminated soil because people — particularly children — eat soil, inhale soil, and contact soil with their skin in the course of normal activities. Moreover, soil particles can be readily entrained and blown off site, as recently measured at the Vertac Site in Arkansas. In Jacksonville, AR, airborne particulates have resulted in concentrations of 2378-TCDD between 3 and 15pg/cu m in air. This amount by itself exceeds by as much as four fold the so-called reference dose (a true total reference dose) which has been proposed for 2378-TCDD.

Second, the approach to calculating partitioning of hazardous substances between media in this document is actually illogical in its application. Accounting for the movement of hazardous constituents into air, water (and uptake by fish from water), and soil in order to evaluate potential human exposure is good environmental science and good policy. Even in this instance, when it is based on fairly simplistic assumptions for predicting

In addition, the document is illogical and rife with technical mistakes, as will be demonstrated below. Whether these indicate intentional practices or inadvertent lapses in scientific thinking can only be judged by your investigations into the processes by which this strange document was developed.

1. Failure to deal comprehensively with multimedia exposure to hazardous constituents in hazardous waste

EPA relies upon a new concept, the so-called reference dose which is merely a new name for the old terminology of "acceptable dose". In developing the reference dose (RfD), EPA claims that it has included the total potential exposure to the hazardous constituent of concern. To do this, however, three dimensions must be considered: 1) consideration of all media into which hazardous wastes may migrate from land disposal sites, including air, soils, surface and ground water; 2) accurate understanding of intermedia partitioning; and 3) other sources of exposure to the same toxic substances, such as food and drinking water.[1]

The methods proposed for calculating the reference doses do not consider all media of potential exposure. Although mention is made that air emissions will be integrated into the exposure assessment, this is not dealt with in any detail in the document. In fact, the reference dose is actually based on recommended maximum contaminant levels and maximum contaminant levels (RMCLs and MCLs) developed for drinking water.

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1. The EPA, by adopting MCLs rather than RMCLs is inappropriately cost factors into a decision-making process.

movement of hazardous constituents — using physical-chemical constants (Henry's Law for vaporization and volatility, the octanol:water coefficient for solubility in water) — it represents at least a recognition of multimedia routes of exposure. However, movement into air is only considered as movement from contaminated water, not direct movement from land disposal into air, as was the case at the Silresim site in MA. Use of the octanol:water coefficient for estimating the movement of hazardous constituents into water ignores both the matrix effects of codisposal with solvents or oils (for dioxins) and the movement of wastes en masse or chemicals adsorbed onto particulates into collodial suspensions in water.

The use made of these partitioning data is totally illogical. EPA states that the partitioning scenario will be used to apportion exposure and hence to set the screening levels; air is ignored for quantitative purposes in these proposals). But then the reasoning falls apart. The EPA assumes that if 50% of the exposure comes from water, because of partitioning phenomena, then "the indirect effect...is to permit an approximate doubling of the RfD [reference dose]" (1631). In fact, the RfD should be <u>halved</u>, not doubled, because the other 50% of the exposure is <u>not</u> being controlled by any actions to restrict land disposal. Table 1 illustrates the illogicality of the EPA reasoning:

TABLE 1. Calculations for Apportioning Exposure and Adjusting Reference Doses

example: LEAD

assume: 1% of total lead exposure is from inhaled air

40% is from food

15% is from water

45% is from dusts and soils*

assume total acceptable daily dose of lead is 100 ug/day**

then, 1 ug/day total exposure can allowably come from air

40 ug/day total exposure from food

15 ug/day total exposure from water

45 ug/day total exposure from dusts and soils

total exposure = 100 ug/day

under EPA assumptions:

in air can have 100x RfD or 10000 ug/day total exposure

in water can have 7x RfD or 700 ug/day total exposure other exposures

(food, dusts and soils) remain the same = 86 ug/day

total exposure = 10785 ug/day, or over 100 times the acceptable dose

*source: total daily exposure for children, according to EPA Ambient Air Quality Criteria Document for Lead, 1986.

**for purposes of calculation only; see CDC, Preventing Childhood Lead Poisoning, 1985, for a full discussion of acceptable exposures to lead in children.

This extraordinary failure of logic, which leads to order of magnitude miscalculations and exceedances of a reference dose, may seem unbelievable. In fact it violates EPA's own definition of the RfD, as stated on p. 1627:

> The RfD reflects the total theoretical permissible daily human exposure from all sources, including air, water and food. Thus, when analyzing only one of several possible exposure routes, it is necessary to 'apportion' or fractionate the RfD to take into account other possible exposures.

In contrast to any rational interpretation of what this definition might mean, the EPA clearly opts for the apportionment or fractionation result to be used to multiply the RfD for each medium or route of exposure.

2. Failure to consider exposures which cause chronic disease and death other than cancer

The approach to evaluate screening levels for carcinogens has its own weakness (see below) but buried in the document is EPA's continued failure to acknowledge the health significance of noncarcinogenic effects of chemicals. As indicated on p. 1681, EPA will use its socalled WET matrix, or RCRA Risk-Cost method for risk assessments. This method has never received a thorough scientifically review and contains numerous problems, including a wholly inadequate toxicology database. Its concept of toxicology is fundamentally flawed in that, as admitted in the proposed

regulations, all diseases or causes of death other than cancer are considered to be less significant than cancer. Thus as stated explicitly, on p.1683, "if 10 cases of neurotoxic effects are anticipated, the model adds only 5 cases to the total number of estimated additional cases." This is extraordinary in its disregard for the suffering and loss of life which are associated with diseases other than cancer. As of 1983, the National Center for Health Statistics listed the following as the leading causes of death in the US:

1. heart disease
2. cancer
3. stroke
4. accidents
5. pulmonary disease
6. pneumonia and flu
7. diabetes
8. suicide
9. chronic liver disease
10. artherosclerosis

The WET matrix also fails to evaluate nonlethal diseases and disabilities. EPA's arbitrary judgement to downgrade seven of the eight major diseases is insidiously calculated to minimize concerns for the very substances under consideration in the land disposal ban. That is, many solvents are neurotoxic and hepatotoxic, rather than carcinogenic; some of the dioxins have major effects on reproduction, the nervous system, and the immune system. When EPA comes to consider the metals on the California list, such as lead and mercury, this bias against noncarcinogenic disease and death will severely distort regulation such that dumping of metals on land will continue.

This bias reflects a deep philosophical problem within EPA in its evaluation of health effects of toxic substances, which transcends this instance of RCRA regulation. It has appeared most egregiously in EPA's recent report on health hazards from spills of solvents by the microelectronics industry in Santa Clara County. Here, the EPA willfully ignored data on reproductive toxicity associated with exposure to the Fairchild spill (five-fold increases in severe heart defects in newborn babies and substantial increases in miscarriage rates), to focus only on cancer. Interestingly, only the industry trade association agreed with EPA's strange tunnel vision — in contrast to the California State Health Department, which had found the increases in birth defects and reproductive toxicity through an outstanding epidemiological study.

Congress has already made it clear through the Toxic Substances Control Act, that this nation has equal concern to prevent diseases and death from all causes which can be associated with exposure to toxic substances. This message must be reiterated to a willful, heedless Agency in the context of its responsibilities to manage hazardous waste.

3. Devaluing Risk

By far the most disturbing innovation in risk assessment which is contained in this document is the proposal that the results of quantitative risk assessment can be downgraded substantially by consideration of factor

extraneous to the toxicity data upon which the risk assessment was based. First, the Agency proposes to devalue and discount quantitative risk assessment according to "weight of evidence". Weight of evidence is a valid scientific concern in the development of risk assessment information — that is, how much and how authoritative is the information on the carcinogenic or mutagenic properties of the chemical in question. In the new risk assessment guidelines for carcinogens, published in the Federal Register on Nov 23, 1984, EPA discusses a classification of carcinogens according to type of information available (e.g., human epidemiology; animal bioassays; number of species tested). The consensus expert panel of the SAB, on which I served, recommended that the type of evidence is important and should be denoted qualitatively. However, we agreed that the weight or type of evidence cannot in any way be used quantitatively, to discount the overall risk (see p. 46299 of F.R., Nov. 23, 1984). The ECRA proposal of risk devaluation is thus wholly unsanctioned by the Science Advisory Board in its approval of the new risk assessment guidelines, despite the insinuations of EPA staff to the media. It constitutes a major, nonscientific innovation in risk assessment practice.

Its impact can be judged from EPA's proposal that deviations in risk as high as 100-fold would be permitted given the license to reevaluate risk on the basis of weight of evidence (p. 1628).

Second, even more perniciously, EPA is proposing to incorporate total population exposure in determining acceptable risk. This is unacceptable on both methodological and policy grounds. Scientifically, it ignores the fact that quantitative risk assessments are based upon assumptions of an exposed individual. By definition, risk assessment methodology is valid only for assessing the risk of the maximally exposed individual (MEI). To develop risk assessments for groups of individuals, such factors as individual differences in metabolism, susceptibility, life style, age, and other variables must be incorporated. The standard risk assessment methodology does not and cannot take these factors into account. The bizarre notion that the magnitude or significance of risk is dependent upon the numbers of people subjected to the risk must be rejected. Not only does it violate fundamental concepts of equal protection but is is also scientifically ludicrous. It is analogous to the smoker, on being told that smoking two packs of cigarettes a day increases his or her chances of lung cancer to one in three, responding, "Well, there's only one of me, so why should I worry?"

EPA calls its proposals a method "to augment MEI [maximum exposed individual] risk information" but actually it is a method designed to diminish into insignificance any and all risk assessments based upon the maximally exposed individual. It is also clearly beyond the capability of this agency to accomplish, given its primitive understanding of demography and epidemiology at least as evidenced in this document. That is, in order to incorporate actual populations around actual dumpsites in the risk model. EPA must not only have accurate information on populations in such places but also information whereby it can predict changes in population over the lifetime of hazard of the disposed wastes. The lack of predictability of population

growth around hazardous waste disposal sites must be one of the basic lessons we have learned from our experience to date with these facilities and the environmental havoc they can wreak. Love Canal was not populated densely, nor was its surface used as a school playground when it was first used as a dumpsite.

The examples chosen to demonstrate EPA's competence to predict population change — New York, Boston, Philadelphia, San Francisco, St. Louis, Washington — show either ignorance or deliberate distortion of the uncertainties of population assessment and the issues relevant to hazardous waste management. First, these large metropolitan areas are highly unlikely to have hazardous waste land disposal facilities located in or near them. Second, these are either cities which are physically constrained from further growth or are in the northeast or "rust belt" of the United States and have been losing population due to socioeconomic factors. Totally missing from this happy picture of relative population stability and actual population decreases (see p.1638) is any Sunbelt city or representative of any other rapidly growing demographic region of the US. Also unstated is the observation that wastes can migrate significantly, to the extent leachate from Niagara Falls actually now threatens the drinking water of Toronto.

The Agency appears to realize to some extent the bombshell they have created in this proposal of incorporating site-specific population estimates into risk assessment. After devoting extensive consideration to this concept to population-dependent risk assessment, the proposed regulations back off proposing an explicit formula whereby specific levels of population would be used to discount risk. In a different context (1682), the document admits "the Agency's inability to defend assigning different population distribution to different hazardous constituents". Nevertheless, it is stated (1636) that "[I]f the size of the potentially exposed population is estimated not to be

very large" EPA would consider allowing risks to increase by as much as two orders of magnitude. It is further admitted that population considerations could cause a variation of risk by three orders of magnitude (from 10-7 for large populations — size unspecified — to 10-4 for small groups of rural unfortunate citizens).

If the proposal for discounting according to weight of evidence is combined with these proposals for population-based devaluation, then the total impact on a carcinogen risk assessment could be to take a risk level from 10-6, as a nominal starting point, to 10-2, or one in one hundred, for those persons unfortunate enough to have few neighbors and to be exposed to a substance which in EPA's view has relatively less weight of evidence of carcinogenicity. Recall that this is an agency which took years to acknowledge the evidence on asbestos, and which as not yet decided if the weight of evidence on formaldehyde is sufficient.

Population size is also going to be used to allow relaxation of quality control procedures and data requirements (p. 1707) on the assumption that the consequences of a mistaken analysis will be proportional to the number of people affected. This is totally unacceptable. The consequences of mistaken analysis are influenced most by the nature of the mistakes (i.e., was a carcinogen inaccurately assessed, or was exposed grossly underestimated rather than by the number of people impacted.)

The use of population risk distributions in the comparative risk analysis is flawed. In fact, the use of Monte Carlo simulation methods for situations where considerable information is in fact known relative to the risk of land disposal and of certain alternative technologies (e.g., incineration). is

highly dubious. EPA seems aware of this, when it admits, on p. 1688 that the simulation does not address such issues as assumptions used to model transport through environmental media, uncertainties as to the nature and magnitude of their toxic effects. Given these omissions, it is hard to see what advantage for policy analysis is gained by using such an incomplete mode.
Notwithstanding these fundamental limitations, the EPA has provided a wholly illogical interpretation of Monte Carlo results. It is stated that "in the comparative risk analyses, absolute risk sources are unimportant" (1686). This is ludicrous.

To ignore differences in the nature of the risks is analogous to claiming that because two outcomes have an equal likelihood they are equally acceptable although one outcome may be losing your head, and the other may be losing your shoe.

The different amount and magnitude of risk as well as the likelihood (or frequency distribution) of risks has very real significance. Thus, taking figure 14, on p. 1686, for a theoretical comparison of the risks of land disposal compared to those of another treatment methodology (unspecified), there appears to be an equal distribution of relative risks. That is, half the time (in Monte Carlo simulation) the risks of land disposal are higher than those of the treatment alternative, and half the time, the risks of the treatment alternative are higher than those of land disposal. Does this suggest a tossup? No. Another examination indicates that if we consider cumulative risk frequency, rather than simply frequency, the total estimated risk of land disposal far outweighs that of the treatment alternative. That is because for the 50% of the expected outcomes where land disposal is more

risky, it is very risky, and more risky than the riskiest outcomes predicted for the treatment alternative. When considered in this way, it becomes clear that the treatment alternative is vastly preferable, in terms of comparative risk analysis, to land disposal. If EPA is going to do comparative risk analysis, it should do it correctly.

SUMMARY

Like the previous testimony, I endorse the position that much of this posturing is unnecessary. It is in violation of the clear intent of Congress to limit the use of land disposal and to preclude its use for certain highly toxic and persistent hazardous constituents. The lack of toxicology data severely impedes any scientific process for comparing risk assessments or setting reference doses. In the face of data gaps, one option EPA proposes is to actually eliminate certain hazardous constituents from a health based analysis. EPA blames Congress for imposing time schedules so rigorous that information cannot be obtained; this would be avoided if the whole approach embodied in these proposals were not adopted. This is our recommendation.

This testimony has been undertaken to demonstrate that the EPA proposals, in addition to their fundamental unacceptability, operate in a way to permit continued land disposal by distorting the fundamental science. Its application in these proposals are not conservative; they are all permissive, in that they operate in concert to provide for substantial relaxation of protection against the threats to our nation's health from hazardous waste.

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TESTIMONY OF DAVID J. LENNETT

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before the

SENATE SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION

concerning the

IMPLEMENTATION OF THE FEDERAL HAZARDOUS WASTE REGULATORY PROGRAM

UNDER RCRA

February 24, 1986

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Good afternoon. My name is David J. Lennett, and I am a staff attorney with the Environmental Defense Fund (EDF). I have been EDF's principal attorney on hazardous waste regulatory matters for six years. In that capacity, I have participated in many administrative and judicial proceedings regarding the implementation of the Resource Conservation and Recovery Act (RCRA). I have also served on the hazardous waste advisory committee for the Office of Technology Assessment, and have testified before this Subcommittee and other committees of the Congress regarding inadequacies in the federal hazardous waste regulatory program. My testimony today will cover a variety of important implementation issues facing the RCRA program, while my colleagues will focus on EPA's recent land disposal ban proposal.

As an introductory note, the Subcommittee is to be commended for its efforts in enacting the 1984 Amendments to RCRA. These amendments are already having a strong and positive effect on hazardous waste management practices in this country. In particular, the use of unlined surface impoundments has substantially declined in the past year. These surface impoundments have contributed to significant environmental contamination, and would have been allowed to continue operating under EPA regulations in effect prior to the passage of the 1984 Amendments.

Significantly, the two provisions of the 1984 Amendments most responsible for the decline in reliance on surface impoundments are statutory directives not heavily dependent on the promulgation of EPA regulations or the exercise of EPA discretion. They are the impoundment retrofit requirements established by Congress effective November 1988, and the loss of interim status provisions effective November 1985. Together, these two provisions have encouraged the

regulated community to reexamine their surface impoundments expeditiously, and in most cases, to put them out of business. The success of these provisions, when juxtaposed with the exercise of EPA discretion described below, argues strongly for greater specificity in RCRA when Congress reauthorizes the law again in the coming years.

CLOSURE

EPA figures indicate that approximately 1000 interim status land disposal facilities were forced to cease operations as of November 8, 1985. The vast majority of these facilities could not certify compliance with either the applicable groundwater monitoring requirements or financial responsibility requirements, or both. Aside from the obvious implication which can and should be drawn from these numbers about the efficacy of state and EPA enforcement efforts, a critical implementation question arises. Specifically, are EPA and the states capable of properly closing all these facilities in a timely and environmentally acceptable manner given existing regulations and current resources and management priorities? Unfortunately, the answer to this question is no, and the end result may be that a significant number of RCRA sites will become Superfund sites and the public will have been poorly served by the RCRA regulatory program.

The failures of EPA in the closure area can be divided into three categories: regulatory loopholes, lack of guidance and training, and insufficient resource commitments. With regard to regulatory loopholes, EPA has failed to modify a surface impoundment closure regulation which allows the owners/operators of certain impoundments to close without cleaning up most of

the contamination caused by the facility. This particular regulation, 40 CFR 265.228(b), merely requires that owners/operators of impoundments receiving characteristic wastes clean up contaminated soil and groundwater meeting the regulatory definition of a hazardous waste. Because the current definition of a hazardous waste is so inadequate, most contaminated soil and groundwater would not be covered under this regulation. As a result, the contamination may be left in place, and no post-closure care is required.

EPA proposed a modification to this regulation in July of 1982, but still has not completed the rulemaking. Considering the number of facilities potentially involved, EPA's lackadaisical attitude toward fixing this regulation is inexcusable. Moreover, new Section 3005(i) of RCRA, as added by Section 243(c) of the 1984 Amendments, explicitly states that interim status surface impoundments that received hazardous waste after July 26, 1982 must be subject to the same groundwater monitoring and cleanup requirements as permitted facilities. Yet EPA failed to fix 40 CFR 265.228(b) in the rulemaking codifying the 1984 Amendments, even though permitted impoundments are subject to much more stringent cleanup requirements at closure.

Compounding the difficulties caused by weak regulations is the almost total lack of guidance available to EPA and state field personnel about how to properly close an interim status land disposal facility. There are many difficult issues which arise with respect to such closures, and EPA Headquarters has managed to develop only three pages of guidance on this subject. As an example of the kind of issues which arise in the closure context, consider the case of a facility with an unlined inpoundment which was never monitored in accordance with federal or state regulations. The facility

owner/operator may claim that the facility has not contaminated the underlying soil or groundwater, but considering the design of the facility and the liquid nature of the waste in the impoundment, contamination can be reasonably expected. If the impoundment had been properly monitored for the last four years, there would be some basis for determining whether contamination has occurred. However, because the owner/operator has been allowed to violate the law all this time, valid groundwater monitoring data is just not available. Some of the issues which arise under this scenario are whether the facility owner/operator should be required to properly monitor groundwater prior to or as a condition of closure, how long such monitoring should continue, whether soil sampling should be required in addition to or in lieu of groundwater monitoring, and what constitutes appropriate response actions should sampling reveal contamination of the soil or groundwater. In cases where the impoundment has been operating for many years, substantial contamination may have occurred, requiring difficult judgments about sampling parameters and the location and number of samples to be taken. Unfortunately, this leaking impoundment scenario is not unusual; most of the closing facilities are impoundments, many of which are unlined. Furthermore, many are closing specifically because they were not in compliance with groundwater monitoring requirements. Therefore, the issues just described are not intellectual abstractions but immediate concerns. If they are not properly resolved, the owner/operator of an impoundment may be able to walk away from contamination he is responsible for, and the RCRA program will have failed. EPA's inability to develop appropriate closure guidance is a major reason the substantial possibility of such a failure exists.

The lack of written guidance is especially glaring given the complete lack of training EPA has provided state and federal field personnel. EDF has reviewed dozens of closure plans and has worked closely with these officials as part of this process. Based on our experience, we have found it is not unusual for the least experienced personnel to be assigned responibility for closure plans. These people have a difficult enough time mastering the RCRA program in general, let alone making policy recommendations on complex closure issues without any guidance to assist them. Although the RCRA program is delegated and decentralized, EPA cannot and should not shirk its responsibilities for ensuring field personnel are properly prepared for the tasks they assume.

Finally, the closure process should be completed in accordance with timetables specified in EPA regulations. These regulations require that owners/operators of facilities ceasing operations as of November 8, 1985 must submit closure plans for approval by November 23, 1985. Within 90 days of the submissions, the Regional Administrator or the authorized state is required to approve, modify or disapprove the plans. If the plans are disapproved, the owners/operators must submit a new plan within 30 days, and the revised plans must be approved or modified by the Regional Administrator or authorized state within 60 days of the second submission. Accordingly, the closure plan approval process for the 1000 facilities should be completed by May 23, 1986. EDF estimates that if twenty percent of the 1000 closing facilities are managed in accordance with EPA regulations, it will be a miracle. These deadlines were routinely ignored by EPA prior to November 8, and the number of facilities closing as of November 8 argue strongly against anticipating

improvement by EPA in this critical area. The reasons for this poor performance are many, but chief among them are the low priority and insufficient resources devoted by EPA to the closure process. EDF urges this Subcommittee to question EPA as to when the closure of the 1000 facilities will be completed given existing resources assigned to closures at the state and federal level. In making this request, it is not EDF's intent to encourage the rapid approval of poorly developed plans, but rather to elevate the closure process as an Agency priority.

SMALL QUANTITY GENERATOR REGULATIONS

EPA will shortly issue final regulations that lower the small quantity generator exemption to 100 kilograms per month, as required by the 1984 RCRA Amendments. However, the regulations EPA intends to issue include a glaring loophole which will return the program to the days of unregulated midnight dumping. The loophole involves the waste tracking system EPA intends to employ for small quantity generators.

Under the EPA scheme, small quantity generators will be required to fill out manifest forms which accompany the waste to the designated facility licensed to manage the waste. The generator retains a copy of the manifest, and upon delivery of the waste to the designated facility, the owner/operator of the facility mails a second copy of the manifest (which he signs to confirm delivery) to the generator. When the generator receives the second manifest in the mail, he knows the waste arrived where it belongs. But what if the second manifest never comes in the mail? This could mean the manifest was lost in the mail, or it could mean the waste was dumped on the side of the

road somewhere. EPA apparently doesn't care what the reason is, because it does not intend to require small quantity generators to notify EPA or an authorized state if the second manifest does not come in the mail. Large quantity generators are required to notify; they must file exception reports within 45 days of the waste shipments if delivery to the facility is not confirmed. These exceptions reports are the only routine method available to regulatory authorities to ascertain whether midnight dumping is occurring under the federal rules. Nevertheless, EPA has determined that filing exception reports is too large a burden to place on these newly regulated generators. How large a burden can this possibly be? It is a requirement that becomes effective only when delivery has not been confirmed, and the exception report itself is not a lengthy document.

Theoretically, EPA might not need exception reports if it intended to inspect small quantity generators frequently enough to determine if generators are receiving second manifest copies from facility owner/operators. The reality is, however, that EPA's regulations allow the generator to destroy manifests after three years, and EPA and the states don't currently inspect large quantity generators every three years. In light of these inspection deficiencies one would expect EPA to retain the exception reporting requirement as minimal protection against midnight dumping. Unfortunately, EPA has once again lost sight of its mission to protect human health and the environment.

OMB INTERFERENCE IN RCRA RULEMAKING

EPA has yielded to illegal OMB efforts to delay the issuance of rules subject to statutory deadlines. EDF recently challenged a glaring example of such activity, where OMB refused to allow EPA to propose the Congressionally mandated permitting standards for underground tanks storing hazardous waste.

Despite a statutory deadline of March 1, 1985, OMB required EPA to submit its notice of proposed rulemaking to OMB for review under Executive Order 12291. EPA submitted the notice of proposed rulemaking to OMB for review on March 1, 1985, the date of the statutory deadline. Even though OMB staff were acutely aware that the statutory deadline had expired, they waited for six weeks before giving EPA staff any formal comments on the proposed regulations. Because OMB staff disagreed with several aspects of EPA's proposal, they refused to approve it for publication in the Federal Register. OMB notified EPA that it was invoking the extended review provisions of the executive order in order to prohibit EPA from publishing its proposal. Thus, even though the statutory deadline had expired, OMB invoked the executive order to prohibit EPA from taking action required by Congress.

OMB staff refused to clear the proposed regulations in their original form and insisted that EPA make significant changes in them. EPA staff submitted revised regulations to OMB for review on May 10, 1985. OMB still was not satisfied with the revised regulations and they insisted on further changes. Only after EDF and two of its members filed a lawsuit against both EPA and OMB on May 30, 1985 did OMB permit EPA to publish the proposed standards. But OMB first dictated still further changes in the proposed standards before they were published on June 26, 1985.

OMB and EPA completely ignored the procedures established by Executive Order 12291 to prevent OMB review from conflicting with statutory deadlines. Section 8(a)(2) of the executive order provides that such conflicts are to be reported to OMB and a statement is to be published in the Federal Register explaining why the normal review procedures cannot be followed. OMB's own Form 83, "Request for OMB Review," and the agency's Regulatory Docket Worksheets contain a box marked "Statutory or Judicial Deadline," which is checked when a rule is not submitted to OMB for review prior to publication because of a deadline. OMB ignores this procedure entirely, as indicated by the fact that OMB's Regulatory Docket Worksheets treated the tank standards as a "Standard" submission even though EPA had checked the "Statutory or Judicial Deadline" box on Form 83.

In response to EDF's discovery requests, OMB and EPA admitted that they have no formal procedures outlining the circumstances under which OMB review is to be bypassed pursuant to section 8(a)(2) of Executive Order 12291 in order to comply with statutory deadlines. Both OMB and EPA were unable to cite a single instance in which the procedures of section 8(a)(2) were followed. In fact, EDF discovered that OMB apparently has no way of identifying regulations subject to statutory deadlines in their computer tracking system. OMB's annual reports reveal that there have been only five instances - and none since 1983 - in which OMB has even acknowledged that its review of EPA regulations has been affected by a statutory or judicial deadline.

OMB's review of the proposed permitting standards for underground tanks storing hazardous waste illustrates how OMB has abused its review power in an effort to substitute its judgment for EPA's. Prior to submitting the proposed standards to OMB for review, EPA determined that the best regulatory strategy for protecting the environment against leaks in underground storage tanks was to require secondary containment for such tanks. This approach would permit leaks to be discovered before the toxic chemicals are released into the environment. EPA considered varying control requirements for tanks based on site-specific circumstances but it decided that this would be too expensive to implement and would not provide adequate protection for human health and the environment. OMB, however, objected to the "containment philosophy" behind EPA's proposal. OMB does not believe that it is always desirable to prevent leaks of toxic substances from underground tanks. OMB believes that only leaks of hazardous waste that can be demonstrated by risk analysis to harm human health should be contained. Thus OMB insisted that "any place in the preamble [of the proposed tank regulations] where it was stated that the intent of these regulations is 'to prevent releases to the environment'" be "changed to 'to protect human health and the environment'." OMB also insisted that EPA base its standards on risk assessments, and that it consider varying the standards to permit weaker regulations to apply on the basis of site-specific factors. Thus OMB dictated to EPA how to interpret its statutory mandate under RCRA, rejecting EPA's approach.

The government argued in the tanks litigation that OMB does not displace agency decisionmaking because EPA is free to reject OMB's changes. However, unless EPA agrees to accept OMB's changes, OMB can block any regulatory action

by EPA indefinitely. This is the strategy OMB uses to dictate the substance of agency decisions. OMB review is extended indefinitely until the agency agrees to the changes sought by OMB. If the agency resists, the regulations can languish under extended review for months and even years.

It is clear that this is precisely what occurred with the tank standards. OMB extended its review of the tank standards not simply to give it more time to prepare its "advice," but also to ensure that its "advice" was adopted by EPA. OMB refused to complete its review of the standards until it was satisfied that all the changes sought by OMB had been made in EPA's proposal. After EPA submitted a revised proposal on May 10, 1985, OMB insisted on still further changes. On June 4, 1985, OMB staff met with EPA staff to dictate the "fixes needed for clearance." Exhibit SA-13, in EDF v. Thomas, No. 85-1747. OMB staff insisted on approving word-for-word changes in the proposed regulations. A handwritten note informed the Director of EPA's Office of Solid Waste on June 6, 1985, that "OMB has concurred on the revised tank package provided you agree to the following attached changes." Exhibit SA-15, in EDF v. Thomas, No. 85-1747.

As you know, on January 23, 1986, the Court ruled in EDF's favor, declaring that OMB has no authority to delay promulgation of RCRA rules beyond statutory deadlines (copy of opinion attached). However, the government has moved the Court to reconsider this aspect of the opinion. Significantly, EPA has already missed RCRA deadlines for promulgating improved hazardous waste export controls (due November 8, 1985), listing additional wastes (due February 8, 1986), regulations minimizing the disposal of containerized liquids in landfills (due February 8, 1986), and guidelines for federal

procurement of recycled paper products (due May 8, 1985). Prior to the Court ruling, EPA indicated these rules would follow the same OMB review procedures as the tank standards. EDF urges this Subcommittee to explore with EPA whether these rules (in proposed and final form) will be submitted to OMB for Executive Order 12291 review. Ironically, the government has argued in the tanks case that EPA is free to ignore the OMB review process if it chooses to do so. Therefore even in the absence of the court opinion, EPA is capable of discharging its responsibilities in accordance with Congressional intent, should it choose to do so.

DELISTING

EPA is processing delisting petitions submitted by the regulated community, which if granted, would remove the waste streams covered by the petitions from the jurisdiction of the federal hazardous waste regulatory program. Once delisted, these wastes may be managed as any solid waste, like municipal garbage. Therefore, it is imperative that these delisting petitions be carefully evaluated and uncertainties be resolved against the granting of the petitions.

Nevertheless, EPA has proposed a series of delistings recently where the petitioner submitted either no groundwater monitoring data for the units to be delisted, or the data was invalid because the monitoring system or sampling procedures at the facility were inadequate. The lack of monitoring data was a result of four years of noncompliance with federal and state groundwater monitoring regulations. By considering these delisting petitions, EPA is rewarding the very persons who have been operating in violation of the law.

Ironically, EPA has stated it will consider evidence of groundwater contamination as grounds for denying a delisting petition. EPA recognizes that actual monitoring data acts as a verification of the theoretical modeling on which the petitions would otherwise be based. Companies which have been monitoring as the law requires may thus have their petitions denied if monitoring data indicates contamination caused by the units to be delisted. On the other hand, companies which have violated the law do not have this problem. There is no evidence of contamination at their facilities because they never looked for it, despite federal regulations to the contrary. In short, EPA's delisting policy prefers ignorance over data, and violators over compliers.

To complete this cycle of irrational policymaking, in several instances EPA and state enforcement personnel chose not to require delisting petitioners to install groundwater monitoring systems even though they were required to by federal and state regulations. The reason was that these companies had filed a delisting petition, even though it hadn't been processed or approved yet. Therefore, simply by filing a petition, these companies were able to violate the law, and now EPA Headquarters intends to reward them for their efforts.

GROUNDWATER MONITORING REQUIREMENTS

In recent months, EPA has failed to take action to modify its groundwater monitoring regulations despite a Congressional mandate to do so, and has issued guidance to federal and state permit writers which is contrary to the intent of Congress. Both these actions resulted in a weakening of the

groundwater monitoring requirements.

Existing federal regulations require that the owner/operator of a permitted facility locate the background monitoring well so that it is not affected by leakage from a "regulated unit", defined as a hazardous waste land disposal unit receiving waste after July 26, 1982. Conversely, the background well may be contaminated by leakage from a non-regulated unit, which includes any hazardous waste unit which stopped receiving waste prior to July 26, 1982, and any solid waste unit. Should the background well become contaminated with leakage from a non-regulated unit, it can camouflage leakage from the unit the regulations are intended to monitor. This happens because the presence of contamination at the monitored unit is determined by comparing contaminant levels in the background well with levels in downgradient wells. If the contaminant levels in the background well are already high, levels of contamination in the downgradient wells will not appear significantly elevated above background, and will not trigger an appropriate response action.

Section 3004(u) of RCRA now requires persons with RCRA permits to address releases into groundwater from any solid or hazardous unit at the facility as a condition of receiving the permit. These releases include the kind of leakage that could contaminate background monitoring wells for regulated units. As Congress recognized when it enacted Section 3004(u), this new cleanup requirement would require a change in EPA's groundwater monitoring requirements. As the Senate Report states:

> To assure corrective action is taken in response to releases of hazardous wastes or constituents from an inactive unit at a facility seeking or having received a RCRA permit, the

> Administrator will need to revise groundwater monitoring requirements to detect possible releases from all inactive units from which a release could occur at a facility. It will be necessary to determine background water quality at a point unaffected by any waste management activities at the facility.

Despite the enactment of Section 3004(u) over fifteen months ago, EPA has not made the necessary modification to its regulations. On November 7, 1985, EDF petitioned EPA to make this modification, but we have still not received a reply from the Agency.

In contrast, the Agency has taken swift action to weaken its groundwater monitoring requirements. Permit applicants are required to monitor groundwater for a list of approximately 375 contaminants (called the Appendix VIII list of hazardous constituents) if interim status groundwater monitoring has indicated the facility has contaminated groundwater at the time the application is filed. If contamination is not detected until after the permit is issued, Appendix VIII monitoring is required when contamination is detected. During a subsequent monitoring stage, known as compliance monitoring, Appendix VIII scans are required at least on an annual basis.

Without formally changing these regulations, the Agency has issued two documents intended to sharply reduce the number of substances that must be monitored at these points in time. The justification for this action given by EPA is that many of the Appendix VIII constituents are either too difficult or impossible to analyze. The list of substances covered by the guidance eliminates over one fourth of the Appendix VIII list, yet the list was not subject to any outside peer review (including the Science Advisory Board), or public notice and comment before the guidance was issued. Now that the

guidance is already in use, EPA is soliciting public comment.

There are many troubling aspects to the Appendix VIII action. Several are procedural in nature. The Agency has, in effect, drastically modified important hazardous waste regulations without providing for any public input. While the guidance was being prepared, EDF was denied copies of the list of chemicals to be covered by the guidance upon repeated requests. Moreover, a little over a year ago, EPA had begun a rulemaking intended to address some of the problems with Appendix VIII. Instead of completing this rulemaking, or proposing another rule for comment, EPA chose an approach which prevented public involvement until the relevant documents were already in use by the Agency. How can this approach can be squared with Agency pronouncements about the need for effective public participation in the RCRA program and EPA's so-called "open door policy"?

Another troubling aspect of EPA's guidance concerns the substances themselves that were covered by the guidance, and the reasons EPA used for not requiring their analysis. As Dr. Silbergeld can detail, if you wish, the guidance is technically flawed, which is not surprising considering the technical basis for it was essentially prepared in three days. The consequence of these flaws is that less comprehensive groundwater monitoring data will be available in the coming years than there otherwise should be.

Finally, and perhaps most significantly, to justify a weakening of the permitting standards, EPA relies to a large degree on new Section 3005(c)(3) of RCRA, or the omnibus provision of the 1984 Amendments. Ironically, this provision was intended to authorize EPA to issue permits with more stringent

terms and conditions than required by EPA regulations. But as the attached memorandum reveals, EPA has turned the provision on its head by relying upon it for the opposite result, in blatant disregard of Congressional intent. The precedent of using Section 3005(c)(3) in this manner, and the potential for abuse of this authority by federal and state permit writers, is deserving of special attention from this Subcommittee. In light of this omnibus interpretation and the land disposal ban proposal, one must question whether EPA views its mission as implementing the laws as enacted by Congress, or implementing policies it believes are appropriate irrespective of the laws enacted by the Congress.

Thank you for the opportunity to testify today. I would be happy to answer any questions you may have.

STATEMENT OF
DR. J. WINSTON PORTER
ASSISTANT ADMINISTRATOR FOR
SOLID WASTE AND EMERGENCY RESPONSE
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENTAL POLLUTION
OF THE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

February 24, 1986

Good morning, Mr. Chairman and members of the Subcommittee. I am J. Winston Porter, Assistant Administrator for Solid Waste and Emergency Response of the U.S. Environmental Protection Agency. With me today are Marcia E. Williams, Director of the Office of Solid Waste and Gene A. Lucero, Director of the Office of Waste Programs Enforcement.

INTRODUCTION

We appreciate the opportunity to appear before you to discuss the activities underway in the RCRA program. We are proud of the progress we are making in implementing this statute of tremendous importance to every American. In my prepared testimony, I will first touch upon some of our accomplishments in the year since Congress enacted the Hazardous and Solid Waste Amendments (HSWA). I will then share with you briefly how we plan to proceed in implementing RCRA over the next few years. I will mention in my statement some of the specific projects and issues we are dealing with. However, I will not attempt to itemize the status of our work on the 72 new HSWA requirements. We would, of course, be glad to respond to your questions on these topics.

PROGRESS MADE TO DATE

In the past year, EPA has made substantial progress toward attaining the goals that Congress set for our program in HSWA. Let me mention a few of our specific accomplishments.

Codification Rule

Our earliest achievement was to issue the so-called final "codification rule". This rule, issued last summer, incorporated into our regulations those explicit HSWA requirements with short-term effective dates. This rulemaking not only made it clear to the regulated community how HSWA fit into our existing regulatory scheme; it also made clear EPA's views on issues of statutory interpretation.

We plan to add soon to the final codification rule by publishing our statutory interpretation that Federal facilities are covered by the corrective action process to the same extent as private facilities. Both of these actions will assist our implementation of HSWA, because they put the regulated community on notice of many of the new requirements.

Loss of Interim Status

One of the most important messages that Congress sent in HSWA was that hazardous waste land disposal facilities operating under so-called "interim status" must be brought into compliance with applicable groundwater monitoring and financial responsibility regulations, or they must cease operation. This was reflected in the November 8, 1985 Loss of Interim Status (LOIS) deadline. The net result of LOIS is that roughly two-thirds of the 1545 land disposal facilities are closing.

We have implemented the LOIS provision effectively. We notified facilities by mail and through the Federal Register of the provision and of our interpretation of it. We advised facilities that we intended to enforce against them for violations related to the provision. We have identified the facilities that retained interim status, by certifying and submitting their Part B permit applications, as well as those that lost interim status. We have conducted inspections and are developing enforcement actions.

A small number of facilities -- we believe between 50 and 100 -- lost interim status solely because they could not certify compliance with our financial responsibility rules. This was due in part to the recently constrained market for pollution liability insurance. Before November 8, EPA had no appropriate regulatory options in the short term to mitigate the problem facing these facilities. We plan in the next few months to amend our rules to provide at least one additional option, the corporate guarantee, for meeting financial responsibility requirements over the long term for facilities seeking permits. We believe these regulatory changes may provide assistance to the regulated community should the insurance market remain unchanged. As for facilities which lost interim status on November 8, we have no administrative mechanism to restore interim status once it is lost. However, we have provided technical assistance to both houses of Congress in crafting legislative relief for some of these facilities.

Small Quantity Generator Rules

One of the gaps in the RCRA program that Congress addressed in HSWA was the lack of substantive standards for "small quantity generators" producing between 100 and 1000 kg of hazardous waste per month. We have issued proposed rules, and are about to issue final rules before the March 31 deadline, addressing how this universe of generators must handle their waste. We will also issue shortly a report to Congress on three of the four small quantity generator-related topics which HSWA directs us to study (management practices, the manifest system and licensing transporters). Most of this report will be completed more than a year before the statutory deadline.

Burning and Blending Hazardous Waste

Congress also directed us to issue standards to address the "burning and blending" of hazardous waste and used oil as a fuel. Last November we issued final standards restricting the burning of non-specification fuel and of hazardous waste in non-industrial boilers. We will propose standards covering other burning practices in the coming months. Last November we also proposed a rule that would list used oil as a hazardous waste and subject it to a special set of management standards.

Land Disposal Ban

One of the strongest messages in HSWA was that land disposal of hazardous waste must be prohibited unless it would be protective of human health and the environment. Last month, we proposed the decision framework for determining whether or not wastes should be banned from the land. This technical approach received approval by EPA's Science Advisory Board. We also

proposed decisions under this framework for solvents and dioxins. We are on schedule for issuing this rule in final form this November. In a related action, we are also on schedule for promulgating the Toxicity Characteristic Leaching Procedure (TCLP), a rule which would expand our ability to identify hazardous wastes by their toxic characteristics. Much of the analytic work on the TCLP is drawn from the decision framework for the land ban program.

Underground Storage Tank Notification Program

The concern of Congress that underground storage tanks (USTs) were out-of-sight and thus out-of-mind was reflected in the mandated UST notification program. We have completed the Notification Rules so that states can begin to identify the location of these tanks. We have provided informational material, a data system and training to support this notification effort.

State Authorization

To date, we have authorized 39 states to operate the pre-1984 RCRA program, and expect to authorize a total of 45 by the end of this fiscal year. We have come a long way toward fulfilling the intent that RCRA ultimately be implemented by those most familiar with the regulated facilities.

We have also proposed two procedural innovations in how we authorize states to run the RCRA program. The proposed "cluster" state authorization rule would encourage states to pick up the new HSWA components expeditiously. It would group all HSWA requirements issued or going into effect through mid-1987 and would only "start the clock running" for states to become

authorized for those provisions after that date. In addition, the "streamlining" rule would expedite the actual authorization process by modifying the review process. These two rules will continue to strengthen the Federal/state partnership.

CHALLENGES AHEAD

A. PRELIMINARY STEPS

The projects I've just discussed give an idea of the progress we have made in the last 14 months in addressing our nation's hazardous waste problems as HSWA directed. Since I came to this program last July, we have added some additional items to our agenda to assist us as we proceed to implement HSWA. These steps will ensure that protection of human health and the environment will be the most important factor in our decision-making.

Establish Priorities

As you are aware, we have a tremendous number of things to accomplish in the RCRA program. Because we cannot do all of these at once, we must set priorities. Of course, identifying high priorities requires an explicit recognition that lower priority projects may be delayed.

We are setting our priorities according to what will give us the biggest environmental "pay-off", by addressing first those activities with the biggest potential risk. This means that we are setting priorities both among activities and within them. We may find, for example, that the biggest risks can be addressed best and most quickly by one type of rule

change rather than another. We also may find that since some facilities pose greater risks than others, they should be addressed first.

Take a Cross-Media Perspective

We also are making sure that we do not simply move waste from one medium to another by our regulations and clean-up practices. My Office is heading an Agency-wide study of "where hazardous waste is generated and where it goes" in response to various regulatory and market forces. The resulting strategy will ensure that our rules avoid merely transferring risk and instead achieve maximum risk reduction. We do not want to inadvertently encourage waste to go to the area of least regulation, without having first considered whether this is the safest course.

B. SPECIFIC PRIORITIES

Permits, Closures and Corrective Action

Permitting the universe of hazardous waste treatment, storage, and disposal facilities is one of the biggest challenges and priorities of the RCRA program. We are striving to meet the HSWA permitting deadlines, particularly the November 1988 deadline for issuance of permits to land disposal facilities. This is a key goal not only because of the statutory deadline, but because by permitting facilities we will get substantial environmental protection.

The issuance of RCRA permits was fundamentally changed by HSWA, however. Along with significant new authorities came

substantial new responsibilities, which have complicated and lengthened the permitting process. Permits that were near issuance in late 1984, for example, must now be recast to address such complex new issues as corrective action at solid waste management units and the new minimum technological design standards.

Moreover, we are finding that addressing corrective action at solid waste management units is particularly difficult, since there are many more such units than we or Congress anticipated. Initial surveys indicate that between 70 and 80 percent of RCRA facilities have active or inactive solid waste management units with an average of about 6 units per facility. Some facilities have over 100 such units, each of which would have to be addressed in a permit.

The Amendments also involved EPA directly again in permit issuance in states that previously had "final authorization", because EPA is the permitting authority for all HSWA provisions until states are authorized for them. This creates the need for close coordination of permitting at two levels of government.

We are taking a number of actions now to offset the additional time that will be required to complete the new permit process. We are developing ways to expedite decisions through strong EPA facility managers and a team approach. We are also committed to the integrated use of our entire arsenal of authorities to remediate these facilities. We can use both our permitting and enforcement authorities under RCRA -- particularly

the new §3008(h). We can also use RCRA §7003, Superfund §§104 and 106 and TSCA §7 to address the problem. We will not be limited to addressing contamination unit-by-unit, but can treat a contaminated facility as a whole.

In addition to facilities being permitted, there are a large number of closures. About two-thirds of the 1545 land disposal facilities failed to certify last November 8 and have to close. Closing facilities have little incentive to take appropriate closure and corrective action and may not have the financial resources to undertake the proper steps. They are therefore at risk of turning into future Superfund sites. We must focus our attention on some of these closing facilities now to minimize the transfer of our problem to Superfund. This may mean that some closures may be higher priority than some permits.

For both the permits and closures, we are determining priorities among facilities through our Facility Management Planning Process. This entails States and Regions ranking facilities by environmental and other priority concerns.

C. REGULATIONS, GUIDANCES, REPORTS TO CONGRESS

The second major area where we are having to set priorities is in preparing regulations, guidances and reports to Congress. HSWA created 69 such requirements. In addition, the pre-existing regulatory structure already needs repair before we can build the new HSWA scheme upon it. Even with these two sets of regulatory activities, I believe we need to look at the overall regulatory scheme to see whether, for the

longer term, we can make any improvements in our hazardous waste regulatory structure. We should begin to make these long-term changes now by taking certain preliminary steps.

1. HSWA Requirements

Congress sent several clear messages in the 1984 Amendments. One was that interim status cannot go on forever; facilities must be permitted or closed. Another message -- one of the strongest -- was that we must move away from unsafe land disposal of hazardous waste. Congress also filled several gaps that had existed as to which practices, wastes and facilities should be regulated. There was also a strong focus on groundwater protection, and there were directives to correct past mismanagement of waste and get the RCRA program out to the states.

I have already described how we are responding to several of these messages in a non-regulatory fashion with our permitting and closure activities. Let me take a minute to identify our priority regulatory initiatives that implement these statutory goals and that have the potential to achieve major risk reductions.

a. The land ban. We have already made significant strides in carrying out this provision with our recent decision framework proposal, but this program will require diligent effort over the next four years to complete. Among other things, under this framework we could make decisions on whether chemicals on the "California List" must be banned from land disposal, and we will make decisions on whether EPA's listed and characteristic hazardous wastes must be banned from land disposal.

b. Burning and blending. HSWA directs us to issue standards to control burning hazardous waste as a fuel, previously an unregulated practice. We are working on a final listing decision and management standards for industrial boilers.

c. Tanks. HSWA requires that we promulgate standards for underground storage tanks for petroleum and certain hazardous substances, for RCRA hazardous waste tanks which cannot be entered for inspection, and for used oil tanks. Because there are similarities among these three groups of tanks, one challenge has been to ensure that the rules are consistent where they should be, while still meeting statutory provisions which call for distinctions among the types of tanks.

d. Air emission rules for treatment, storage and disposal facilities. This is another gap to be filled, where we are working closely with the EPA Air Office. Controls will be developed for air emissions from all treatment, storage and disposal facilities. This will be particularly important as more volatile wastes are addressed by treatment rather than land disposal. Moreover, unlike groundwater, which is slow moving, air emissions can cause almost instantaneous exposure.

e. Definition of toxicity characteristic. The current definition of a toxic characteristic waste focuses primarily on metals, not organics. Broadening the definition as HSWA requires will bring significant amounts of organic waste into the Subtitle C protection system.

f. Subtitle D report and criteria. Our preliminary data show that there may be as many as 275,000 non-hazardous waste disposal units involving waste placement on land. Since these units can pose risks if not handled and sited properly, an in-depth study and analysis are underway, as HSWA requires, to determine the best approach to regulation.

2. Self-Initiated Changes to Current Regulations

In addition to making HSWA changes, we are also working to modify the underlying RCRA regulatory structure. Our highest priorities are:

a. Streamlined permitting for mobile treatment units. The current permitting structure hinders the use of mobile treatment units traveling from plant to plant and therefore reduces potentially safe capacity. An EPA workgroup and Tufts University are currently looking at possible solutions to this problem.

b. Clean closures of characteristic hazardous waste facilities. Regulations on these closures must be strengthened to ensure better groundwater protection.

c. Groundwater monitoring changes. The groundwater monitoring rules must be made more implementable by addressing problems with the Appendix VIII requirements (which have created a great deal of delay in permitting), with the use of statistical tests, and other provisions.

d. Major/minor permit modification. In order to ensure adequate capacity, additional flexibility is needed

in reviewing major facility changes for interim status and final permits. We are hoping to accomplish this by a regulatory negotiation.

3. Preliminary Steps to Long-Term Changes

Even with the completion of the changes to the regulatory structure which I have just discussed, our approach to hazardous waste management will be complex and difficult to implement. We need to take preliminary steps now to design a better system for the long term. One example of a needed long-term modification is to amend the current approach to listing and delisting hazardous wastes. There are over 60,000 chemicals manufactured or used today, with many more distinct waste streams. We cannot review each of these. We are now considering whether to re-examine the system.

CONCLUSION

As you can see, EPA has taken major steps in implementing the changes to the hazardous waste program outlined in the 1984 RCRA Amendments. We have great challenges still ahead in the RCRA program and we are working very hard to meet these while providing maximum protection to human health and the environment.

Thank you for this opportunity to address the Subcommittee. I would be happy to respond to any questions you might have.

RESPONSES TO QUESTIONS FROM SENATOR MITCHELL

/, Q: What is the basis for EPA's estimate that 95 percent of the solvents and dioxins will need to be treated prior to land disposal using the EPA proposed methodology?

A: Solvents

EPA's listing program (managed by OSW) has collected qualitative and quantitative characteristic data for wastes generated by various industries to determine which new wastes should be considered hazardous under RCRA. While this program does not collect data on existing waste codes, the data collected for this program is the best information available to EPA on the concentration of constituents in wastes and therefore was the basis for estimating the characteristics of wastes subject to the ban.

Based on extrapolations of these data, EPA believes that virtually all of the solvent wastes currently land disposed exceed the screening levels and would require treatment. These data are described in detail in Volume III of the "Background Document for Solvents to Support 40 CFR Part 268, Land Disposal Restrictions." As Table C-1 on page 26 indicates, the mean of the total solvent concentrations exceeds 3,000 parts per million (0.30% by weight) for all solvent-containing wastes, managed by all management techniques. Because this number is so much higher than the proposed regulatory levels, we believe now all solvent-containing wastes will be treated. Because of the limitations of these data, the Agency is taking a conservative approach in

assessing capacity demands for setting effective dates and thus is assumming that 5 percent of all solvent wastes will not require treatment.

Dioxins

In considering the quantity of dioxin-containing waste subject to treatment before land disposal, the Agency excluded dioxin-contaminated soils. There are approximately 500,000 MT of these soils; however, these wastes do not become subject to restriction until 1988 since they are contaminated soils resulting from CERCLA response actions (see Section 3004(e)(3)). Mr. Porter's statement addresses only dioxin-containing wastes that will be subject to restriction on November 8, 1986.

Agency data in support of the dioxin listings indicate that 6,650 metric tons on dioxin-containing waste (excluding soils) have been generated as of mid 1985. These wastes include the following non-aqueous, relatively non-solid wastes:

- still bottoms from herbicide manufacture
- non-aqueous liquid leachate
- spent carbon from aqueous phase treatment
- wastewaters and
- still bottoms from PCP product purification.

The existing data show total dioxin concentrations of 0.6 - 110,000 ppm in these wastes. These data are summarized in Exhibit 6-1 of the draft "Regulatory Analysis of Proposed Restrictions on Land Disposal of Certain Dioxin-Containing Wastes."

Since dioxin-containing wastes, for the most part, are liquids, the dioxin concentration in the leachate will equal the total dioxin concentration in the waste. Dioxin-contaminated still bottoms which often are sludges typically contain organic solvents such as toluene and methanol. Since solvents, when co-disposed with other hazardous wastes, are known to mobilize organic constituents which otherwise may be immobile or relatively non-mobile, a similar effect can be expected for dioxin-contaminated still bottoms containing solvents. Thus, the leachate from these wastes can reasonably be expected to contain dioxins in concentrations well above the 1 ppb screening level. Agency data support a conclusion that all dioxin-containing wastes (excluding soils) will require treatment before land disposal. However, the Agency again is taking a conservative approach in determining capacity demand by stating that 95 percent of these wastes will require treatment.

EPA does believe that most dioxin-contaminated soils (subject to the November 1988 deadline) will not require treatment under the proposed treatment standards. Extraction procedure testing conducted on six samples of dioxin contaminated soils

(ranging from 3 to 1,200 ppb of 2,3,7,8 - TCDD) indicated that none of the samples leached detectable (i.e., 1 ppb) levels of dioxins. (See Evaluation of Dioxin Extraction in the Toxicity Characteristic Leaching Procedure, attached.)

Q. Q: What percentage of the solvents would need to be pretreated under EPA's proposed methodology if there was no adjustment in the screening levels for liner protection?

A: To respond to this question, it would be necessary to have detailed waste characterization data indicating the distribution of constituent concentrations in waste streams by volume of waste. The data relied on in response to the previous question is, unfortunately, not detailed enough to enable us to respond to this question.

Attachments for No. 2 H

LIST

SIZE	BRIEF DESCRIPTIONS
X-Sma	Avg. Consentrations for Non-Halonenated Fast-list Jun 85
Small	Eval. of Dioxin Estraction in the Toxicity Characteristic Leaching Procedure - RTP, NC Kimmell No date
Large	REG ANALYSIS OF PROPOSED RESTRICTION ON LD OF CERTAIN DIOXIN-CONTAINING WASTES - Industrial Economics, Inc. - Jan 86
Large	Background Document for Solvents to Support 40 CFR Part 268, Land Disposal Restrictions - Jan 86
Large	Memo - to the Record fr Roy Sieber, Radian Corporation on the overview of Solvent Wastes Handled by Various Mgmt. Practices 03 Feb 86
X-Sma	Memo - Documentation Supporting Estimates of Consentrations of Solvent Constituent in RCRA Wastes 25 Feb 86
Large	Table on Descritive Statistics for all Waste Containing Fast-list Solvents 29 Jul 85 Tb. 1(a)
Large	Table on Quantities and Concentrations for All Fast-List Solv Wastes falling within specified ranges 8 Jul 85
Large	Table on descriptive statistics for all real concentration values for all Fast-List Solvent Wastes Tb. A1(a) 29 Jul 85
Large	Tb. A2(a) on Quantities and Concentrations for All Fast-List Solv Waste falling within specified ranges 29 Jul 85
Large	Tb. B1(a) on Descriptive Statistics for All Real Concentration Values for Fast-List Solv waste. 29 Jul 85
Large	Tb. B2(a) on Quantities and Concentrations for All Fast-List Solv waste falling within spec ranges 29 Jul 85
Large	Tb. C1(a) on Descriptive Statistics for All Real Concentration Values for All Fast-List Solv Waste 29 Jul 85
Medium	Tb. C2(a) Quantities and Concentrations for All Fast-List Solv Waste falling within specified ranges 29 Jul 85
Medium	Tb. 3(a) Q & C FOR ALL F-L SOLV WASTE FOR EA. CONT. BY RESIDUAL PROP. & MGMT. GROUP 05 Jul 85
Medium	Tb. 3(b) Q & C FOR F001 F-L SOLV WASTE FOR EA. CONT. BY RESIDUAL PROP. & MGMT. GROUP 05 Jul 85
Medium	Tb. 3(c) Q & C FOR F002 F-L SOLV WASTE FOR EA. CONT. BY RESIDUAL PROP. & MGMT. GROUP 05 Jul 85
Medium	Tb. 3(d) Q & C FOR F003 F-L SOLV WASTE FOR EA. CONT. BY RESIDUAL PROP. & MGMT. GROUP 05 Jul 85
Medium	Tb. 3(f) Q & C FOR F005 F-L SOLV WASTE FOR EA. CONT. BY RESIDUAL PROP. & MGMT. GROUP 05 Jul 85
Medium	Tb. 4(a) IV Q & C FOR ALL F-L SOLV WASTE FOR EA. CONT. BY MGMT. GROUP 05 Jul 85
Small	Tb. 5(a) Q & C FOR ALL F-L SOLV WASTE FOR EA. CONT. BY RESIDUAL TYPE 24 Jul 85
Small	Tb. 3(e) Q & C FOR F004 F-L SOLV WASTE FOR EA. CONT. BY RESIDUAL PROP. & MGMT. GROUP 05 Jul 85
X-Smal	Tb. D(a) - (e) on Outlier Analysis of ISDB F-L Solvent Data No date

WHITEHALL CORPORATION

P. O. BOX 29709 214/247-8747 DALLAS, TEXAS 75229

February 19, 1986

The Honorable Lloyd Bentsen
703 Hart Senate Office Building
Washington, D. C. 20510

Dear Senator Bentsen:

Our subsidiary, Aero Corporation, in Lake City, Florida, treats and disposes of small amounts of hazardous waste in its operations and had been doing so under interim status which, as you know, statutorily expired November 8, 1985. Aero Corporation meets all the requirements to continue operations except for the requirement to maintain insurance coverage against liability for sudden and nonsudden accidental occurrences. Aero Corporation has been unable to obtain the necessary insurance due to constraints within the insurance industry.

Whitehall Corporation can meet the alternative financial responsibility requirements for self-insurance; Aero Corporation standing alone cannot. Current Federal environmental regulations prevent a parent corporation from guaranteeing the financial obligations of its subsidiary.

The Environmental Protection Agency (EPA) has indicated that it is considering the acceptance of a corporate guarantee offered by the parent corporation of a subsidiary which treats or disposes of hazardous wastes, provided such a guarantee would not constitute the invalid exercise of insurance under applicable state regulations.

Through our attorney, we asked both the Florida Department of Insurance and the Florida Department of Environmental Regulation their positions on the matter. Copies of our attorney's inquiries and the Departments' responses are enclosed.

Since the Department of Insurance does not consider the issuance of a parent corporation's guarantee an invalid exercise of insurance in the State of Florida, and the Florida Department of Environmental Regulation concurs, we urge you to address the matter of acceptance of a corporate guarantee at the February 24 hearing of the Senate Environmental and Public Works Committee. We believe the acceptance of such a guarantee, which is not in conflict with State insurance regulations, would be an effective solution to permit companies such as ours to continue their normal operations.

Thank you for your consideration and assistance.

Sincerely,

Lee D. Webster
Chairman of the Board

vm

Enclosures
cc: Earl J. Morris, Jr.
Ridgeway Hall

II

99TH CONGRESS
1ST SESSION

H. R. 3917

IN THE SENATE OF THE UNITED STATES

DECEMBER 16, 1985

Received; read twice and referred to the Committee on Environment and Public Works

AN ACT

To extend the period allowed for compliance with certain financial responsibility requirements applicable to land disposal facilities under the Solid Waste Disposal Act.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. CERTIFICATION OF COMPLIANCE WITH FINANCIAL RESPONSIBILITY REQUIREMENTS.

(a) EXTENSION.—In the case of any facility used for land disposal of hazardous waste, notwithstanding the termination of interim status of the facility by reason of the failure of the owner or operator of the facility to file a certification under section 3005(e)(2)(B) of the Solid Waste Disposal Act, such interim status shall be treated as continuing in effect if the owner or operator—

(1) filed on or before November 8, 1985, with the Administrator an adequate certification (under section 3005(e)(2)(B) of such Act) of compliance with (A) groundwater monitoring requirements as of November 8, 1985, and (B) financial responsibility requirements (except for the liability requirements of 40 C.F.R. 265.147),

(2) applied on or before November 8, 1985, for final determination regarding the issuance of a permit pursuant to section 3005(e)(2)(A) of such Act, and

(3) files with the Administrator within the time limits set forth in subsection (d) of this section each of the following:

(A) A certification that, in addition to the certification required in paragraph (1), the facility is in compliance with all other major applicable requirements under subtitle C of such Act, or is in timely compliance with an enforceable compliance schedule.

(B) A certification that the facility is not contaminating groundwater or has established the applicable compliance monitoring or corrective action program.

(C) A certification that the facility could not meet the requirements of the financial test under 40 C.F.R. 265.147(f).

(D) A certification that the owner or operator of the facility has been making good faith efforts to satisfy all applicable financial responsibility requirements for the facility pursuant to the Solid Waste Disposal Act and provides documentation of that effort which is satisfactory to the Administrator.

(b) OTHER FACILITIES.—An extension of interim status under this section shall also apply to any facility used for land disposal of hazardous waste which had been operating pursuant to interim status under section 3005(e) of the Solid Waste Disposal Act, if the owner or operator of the facility files each of the following with the Administrator within the time limits set forth in subsection (d):

(1) A certification that the owner or operator of the facility applied for a final determination regarding the issuance of a permit on or before November 8, 1985, pursuant to section 3005(e)(2)(A) of such Act, or submitted a closure plan on or before November 23, 1985.

(2) A certification that the facility was in compliance with the groundwater monitoring requirements

and the financial responsibility requirements (except for the liability requirements of 40 C.F.R. 265.147) on November 8, 1985, but failed to certify as required under section 3005(e)(2)(B) of the Solid Waste Disposal Act.

(3) A certification that the facility is in compliance with the groundwater monitoring requirements and financial responsibility requirements (except the liability requirements of 40 C.F.R. 265.147) supported by documentation in a form satisfactory to the Administrator that may include a notarized statement by a professional engineer not an employee of the owner or operator who corroborates such certification.

(4) A certification that, in addition to the certification required in paragraph (3), the facility is in compliance with all other major applicable requirements under subtitle C of such Act, or is in timely compliance with an enforceable compliance schedule.

(5) A certification that the facility is not contaminating groundwater or has established the applicable compliance monitoring or corrective action program.

(6) A certification that the owner or operator of the facility could not meet the requirements of the financial test under 40 C.F.R. 265.147(f).

(7) A certification that the owner or operator of the facility has been making good faith efforts to satisfy all applicable financial responsibility requirements pursuant to the Solid Waste Disposal Act and provides documentation of that effort which is satisfactory to the Administrator.

(c) REJECTION BY THE ADMINISTRATOR.—Within the time limits set forth in subsection (d), the Administrator shall reject the information submitted by the owner or operator of a facility pursuant to subsections (a) or (b) if the information fails to meet the requirements of such subsections. The determinations of the Administrator under this section shall not be subject to judicial review.

(d) TIME LIMITS.—

(1) NOTICE.—The Administrator shall identify each facility the interim status of which under section 3005(e) of the Solid Waste Disposal Act terminated on November 8, 1985, by reason of section 3005(e)(2) of that Act. Within 15 days after enactment of this Act, the Administrator shall notify the owner or operator of each such facility of the extensions available under this Act.

(2) DEADLINES.—Each certification described in subsections (a) and (b) shall be submitted before the earlier of the following:

(A) 45 days after the owner or operator of the facility receives notice under paragraph (1).

(B) 60 days after enactment of this Act.

(3) INITIAL EXTENSION PERIOD.—If the owner or operator of a facility has submitted the required filings under subsection (a) or (b) within the time limits set forth in this subsection, the extension of interim status under subsection (a) or (b) shall continue for a period ending 45 days after the date of such submission.

(4) SECOND EXTENSION PERIOD.—The extension of interim status for a facility under subsection (a) or (b) shall be extended until June 30, 1986, if the Administrator certifies, based on information submitted by the owner or operator of the facility concerned, in the Federal Register that the facility is not contaminating the groundwater or has entered into an order to implement as soon as practicable a compliance monitoring or corrective action program.

(e) MODIFICATION OF REGULATIONS.—Not later than March 1, 1986, the Administrator shall revise the regulations set forth in 40 C.F.R. 265.147 to provide additional financial responsibility alternatives to the insurance requirement contained in such regulations and may provide for a lesser demonstration of financial responsibility if the Administrator has

made the certification required in subsection (d)(4). The Administrator may consider such alternatives as indemnity contracts, surety bonds, corporate guarantees, and other means of assuring financial responsibility.

(f) DEFINITION OF TERMS.—The terms used in this section shall have the same meaning as when used in the Solid Waste Disposal Act.

(g) ADDITIONAL EXTENSION.—In the case of a facility for which an extension has been provided under subsection (d)(4), the Administrator may issue an additional extension for such facility for a period ending November 8, 1986, if the Administrator finds that an additional extension under this subsection for the facility is necessary because of constraints in the insurance market and if, on June 30, 1986, the owner or operator of the facility files both of the following with the Administrator:

(1) A certification that the facility is not contaminating groundwater or is in timely compliance with an enforceable compliance monitoring or corrective action program.

(2) A certification that he has been making good faith efforts to satisfy all applicable financial responsibility requirements pursuant to the Solid Waste Disposal Act and provides documentation of that effort which is satisfactory to the Administrator.

(h) SATISFACTION OF LIABILITY REQUIREMENTS.—If a facility is operating pursuant to an extension under this section and the owner or operator certifies that he has satisfied the liability requirements of 40 C.F.R. 265.147 for such facility, such facility shall be treated as if the facility had fully certified under section 3005(e)(2) of the Solid Waste Disposal Act as of November 8, 1985.

Passed the House of Representatives December 16, 1985.

Attest: BENJAMIN J. GUTHRIE,

Clerk.

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